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Transforming the UK public procurement from transactional/relational practice to strategic commercial management

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Doctor of Business Administration

ASTON UNIVERSITY

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THESIS SUMMARY

The thesis is about the shift of UK public sector procurement from the current transactional and tactical procurement processes into a strategic commercial management function in order to create and retain value. Strategic Commercial Management being the adoption of the most appropriate and relevant procurement approach in determining supply chain management relationships i.e. transactional, relational or a combination of both approaches. This is informed by the influences that the structure and configuration of supply chain management has on value creation and retention.

The study addresses two primary research issues. The structure and organisation of public sector procurement groups determines their ability to manage highly complex public sector procurement requirements and the type of procurement approach adopted is likely to determine their ability to deliver greater value.

The methodology is based on cases of three UK Government Departments (Department for Work and Pensions, the Ministry of Justice and Her Majesty's Revenue and Customs). In which quantitative analysis (multiple linear regression modelling) was used to determine the effect of procurement approaches on value creation and retention and qualitative analysis used in the identification and analysis of the critical success factors.

The study concludes that a shift towards the procurement of standard services based on output or outcomes provides the optimum strategic commercial management. That the adoption of a combination of transactional and relational procurement approach provides the most effective basis for increasing the delivery of value and ensuring that it is not eroded.

This thesis provides a framework for value creation and retention for practitioners. It also provides the basis for leveraging adopted procurement approaches and develops a number of critical success factors for implementation. The thesis offers up a theoretical model with specific predictions by predicting the effect that transactional, relational or the combination of both approaches has on value creation.

Keywords: Strategic commercial management, Transactional procurement, Relational procurement, Value delivery, Critical success factors.

This thesis is dedicated to my wife Eseosa Precious Orumwense and my four lovely children – Dylan, Amy, Abigail and Joshua. My mum Mrs. Christian Uwumaironmwainsi Orumwense and to the lovely memory of my sister Ms. Roslyn Egumwendia Edopkayi who passed on so many years ago.

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CHAPTER ONE - INTRODUCTION

1.1 Motivation for Research

The motivation for this research is borne out of the desire and curiosity to provide an understanding of how best to create and protect the delivery of value as a direct response to the demands of various UK Government Spending Review (SR) challenges.

1.2 Research Background: Public procurement landscape.

This introductory chapter provides the research background by considering the UK public procurement landscape. It considers a number of procurement approaches including the transactional, relational and the combined or mixed procurement approach (transactional and relational). The chapter also considers the concept of value by providing a definition.

UK public sector procurement must undergo a fundamental shift from the current transactional and tactical procurement processes into a strategic commercial management function. This is necessary for it to be able to organise itself effectively and efficiently to respond to the increasing challenge that faces public sector bodies in the provision and procurement of goods and services. Strategic Commercial Management is conceptualised in this context as the adoption of the most appropriate and relevant procurement approach in determining supply chain management relationships i.e. transactional, relational or a combination of both approaches as appropriate. This contextual definition is also informed by the influences that the structure and configuration of supply chain management has on the creation and retention of added value.

In summarising the state of the UK borrowing and deficit, Hughes and Day (2011) indicated that by 2010 “the UK government was borrowing one in four of every pound spent, the public sector net debt had grown more in the two preceding years than in the previous 300, the UK had the largest peacetime deficit ever experienced, unemployment had climbed to almost 8%, and inflation was increasing while the economy lost momentum” (Hughes & Day, 2011:

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4). As a result, the UK's Her Majesty's Treasury (HMT) working with all Government Departments developed and agreed a range of spending limits. This resulted in the need for a more strategic focus on managing the significant public sector expenditure for value creation and retention.

In a 2013 report by the Organisation for Economic Co-operation (OECD) the average public procurement is indicated to account for about 12.8 per cent Gross Domestic Product (GDP) for OECD countries (OECD, 2013). Similarly, the UK public sector spent about £230 billion on the procurement of goods and services during the 2012-2013 financial year of which central and local government, the NHS and devolved administrations accounted for £192 billion (House of Commons, 2014). In 2016, the NAO reported that Government spends about £225 billion a year with private and voluntary providers (£190 billion revenue and £36 billion capital). The Report estimated that about half of the £190 billion is on services such as outsourcing and privately-run public services and the rest are on goods used by government in the delivery of services such as NHS pharmaceuticals, paper, and energy (Nao.org.uk, 2016). The size of the UK public sector continues to provide significant business opportunities for the private and third sector to trade with Government as a trusted and financially beneficial customer (Michaelis et al., 2003 and Loader, 2005). Therefore, understanding the peculiarities of the supply chain, the creation and retention of value within it, the optimisation of the most viable procurement approach and the critical success factors for implementing the best procurement approach sits at the core of this research.

There have been several attempts at defining the configuration of the UK public sector procurement landscape, for example, in the final report of the Operational Efficiency Programme (HM Treasury, 2009a: 33), a programme that was commissioned by HM Treasury to define how the Government intends to take forward its value for money programmes in preparation for the next Spending Review. The Report identified the procurement landscape in the UK as comprising of "around 44,000 public sector buyers

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including approximately 20,000 schools, 355 English local authorities, 43 police forces, around 500 NHS trusts, central government departments, agencies and non-departmental public bodies (NDPBs)". It describes the landscape as inefficient, fragmented and uncoordinated, with at least 45 Professional Buying Organisations (PBOs) that have evolved in an unplanned manner, over time, with varying business models, no clear common vision and no clear governance. A PBO is a centralised buying organisation with the remit of aggregating the business volumes of subscribing members and providing a framework of contracts to fulfil its customer requirements and thus deliver value in the process. It is also referred to as a Central Purchasing Body (CPB).

The Operational Efficiency Programme (HM Treasury, 2009a: 33) goes on to indicate that approximately £12 billion of the £89 billion spend in categories of goods and services bought commonly across government are channelled through PBOs. The largest PBOs across the UK public sector are the Crown Commercial Service (CCS), NHS Purchasing and Supply Agency (NHS PASA) and the PRO5 (the local authority buying consortia). Between them, they account for £9.3 billion of the £12 billion spend currently channelled through PBOs. The majority of PBOs have a regional or sectorial focus, for example concentrating on health or on a region of the United Kingdom; but the majority of supply markets in which they operate are common across sectors and not restricted to a particular region.

The UK Government launched the Public Value Programme during the Budget 08 report, this programme was designed to introduce a range of austerity measures and significant reductions in public sector spend. In the UK Budget Report (HM Treasury, 2008a: 75) one of the Government's clearly stated aims was the delivery of world-class public services through sustained investment matched by reform. The Budget also announced that "in order to maintain the pace of reform the Government will achieve significant further operational savings in the post - Comprehensive Spending Review (CSR) period and will launch the Public Value Programme to look at all major areas of public spending to identify where there

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is scope to improve value for money” (HM Treasury, 2008a: 75). By 2010 according to Hughes and Day (2011) the “UK GDP for 2010/11 was estimated at £1,473bn, with total public sector expenditure over 40% of this at £632bn, including debt interest repayments of £43bn and net borrowing of £146bn. Current and on-going supplier financial liabilities totalled £562bn. Of this, the estimated annual public sector procurement spend was £243bn, nuclear decommissioning costs £52bn and a liability over 30 years for Private Finance Initiative (PFI) projects of £267bn” (Hughes & Day, 2011: 4) . The Spending Review announced by the UK Treasury in 2010 led to a significant reduction in the UK public sector expenditure underlined by significant cuts to public sector resources, projects and programmes. It also led to the centralisation of financial controls for a number of key public sector categories of spend (Kioko et al., 2011).

According to the former British Prime Minister the Rt. Hon. David Cameron MP “There’s only one thing worse than spending money you don’t have and that’s buying the wrong things with it, and doing so in the wrong way” (cited in Hughes and Day, 2011: 2). In a similar vein Margaret Hodge MP and former Chair of the Public Accounts Committee commented that “during the era of expansion in public expenditure between 2000 and 2010 the emphasis was never really sufficiently focused on value for money. People sought to stay within budgets and achieve the targets they were set, but efficiency was a lesser priority” (cited in Hughes & Day, 2011: 2). Given these challenges, it is important for the Government, public sector bodies and research institutions to explore the possibilities that exist in order to develop and propose an informed response to the identified challenges.

Central to the delivery of public sector procurement and efficiency challenges is the ability for Government Departments to collaborate, a concept which is becoming more prevalent within the UK public policy agenda (Walker et al., 2013). Collaborative procurement amongst Government Departments and across the wider public sector can contribute to the delivery of the efficiency and cost savings challenges, promote financial transparency, rationalise

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and standardise specifications and simplify the procurement evaluation processes (Gobbi and Hsuan, 2015).

The following studies has at different times studied and reviewed collaboration of the UK public sector with suppliers to the sector - Kioko et al., 2011; Hefetz and Warner, 2012 and Lamothe and Lamothe, 2012. However, there is limited research into the internal procurement collaboration within and amongst Government Departments (Walker et al., 2013) except for the consolidation of the procurement for Common Goods and Services through the Crown Commercial Service.

It is therefore important to understand how public sector procurement groups are currently configured in order to make propositions on future and optimised structures for dealing with and responding to these challenges. Consequently, this research explores the transitioning of UK public sector procurement from transactional/relational procurement to strategic commercial management. In doing this, public sector procurement groups will be better informed on how best to organise and the required structures that will help deliver improved value and more importantly to protect the erosion of the value that has been created over time. Consequently, this research study will therefore seek to address the following research issues:

- 1) The structure and organisation of public sector procurement groups will determine their ability to manage highly complex public sector procurement requirements and by implication the supporting supply chains if additional value is to be created and those already created are to be protected from being eroded.
- 2) The type of procurement approaches (transactional, relational or a combination of both approaches) adopted by public sector procurement groups is likely to determine their ability to deliver greater value and also protect the erosion of already created value.

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The investigation of these issues will be limited to three Government Departments namely the Department for Work and Pensions (DWP), the Ministry of Justice (MOJ) and Her Majesty's Revenue and Customs (HMRC). These Departments were selected primarily because of their size and general influence within the UK public sector, they each have highly complex and a mixture of in-house and outsourced IT desktop provision. Additionally they each adopt different procurement methods with the DWP adopting a more relational procurement method and the HMRC and MoJ adopting a more transactional procurement method.

Similarly the procurement category is limited to Desktop primarily due to the universal application and deployment of common desktop infrastructure standards (assets, software, process etc.) across most UK Government Departments where as other procurement categories can be uniquely different from one Government Department to another.

1.3 Procurement Approaches

1.3.1 Transactional Procurement

Transactional procurement are perceived to be adversarial in nature, highly contractual and exploitative, arm's length, impersonal, highly structured, inflexible, discreet and repetitive over time, (Sanders et al., 2007, Bunduchi, 2008, Rinehart et al., 2004, Coviello et al., 2002, Whipple, Lynch and Nyaga, 2010). It contains characteristics that are similar to what is described as competitive or adversarial and can be seen as being open to multiple suppliers, short term in relationship and driven largely by price (Furlong et al 1994: 38). Other characteristics identified with this method are closed, fixed-price competitive bidding (Erridge, 1995: 169), short-term one-off contracts almost always awarded on the basis of the lowest price (Spekman, 1988, Slatter, 1990) and multiple suppliers, detailed contracts and win-lose negotiations (Baily: 1987).

For the purpose of this research, transactional procurement is defined as procurement between buyer and seller which is open to multiple suppliers, short term in nature, driven

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largely by price, often opportunistic and delivered through highly prescriptive and sophisticatedly written and binding contracts.

Transactional procurement contains the following attributes:

- **TRANSACTIONAL (CONTRACT)** - This is where a contract is deemed to be a binding legal arrangement with defined roles, responsibilities, obligations and operational performance measures.
- **TRANSACTIONAL (OPPORTUNISM)** - Opportunism is where a party's behaviour is measured on how it takes advantage of loopholes in contracts, breaches informal agreements, breaks promises or is dishonest to maximise its own benefits.
- **TRANSACTIONAL (Transactional Complexity)** - The extent to which the relationship is governed by sophisticatedly written contracted provisions and the ease with which agreements and negotiated positions are reached

1.3.2 Relational Procurement

Relational procurement is often described as collaborative procurement. They are deemed to be longer term and cooperative in nature (Whipple, Lynch and Nyaga, 2010), interpersonal and likely to operate on a continuous basis (Coviello et al., 2002). It features elements of reciprocity, interdependence and are often longer-term relationships (Min et al., 2005). It includes such attributes as trust, commitment, cooperation, dependence and joint problem-solving (Boyett and Finlay, 1996: 145). Other characteristics identified with this method are longer-term close working relations between buyer and supplier (Erridge 1995: 169), sharing of risks and rewards (Heide and John, 1980), purposeful cooperation (Ellram, 1995), single-supplier, informal contracts (Spekman, 1988) and win-win negotiations (Baily, 1987).

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For the purpose of this research relational procurement is defined as trust based long-term procurement relationships where buyers and sellers cooperate, collaborate, share information, are committed, interdependent and engages in joint problem-solving.

Relational procurement contains the following attributes:

- **RELATIONAL (RELATIONAL NORMS)** - Relational norms emphasises the role of social interactions and the benefits that can be derived from socially embedded relationships. It is about expectations of behaviours that are partially shared by collaborating organisations and directed towards the achievement of collective or group goals.
- **RELATIONAL (TRUST)** - Trust is about the honesty and/or benevolence that exist between the partners or their employees in an exchange relationship.
- **RELATIONAL (PERSONAL RELATIONSHIPS AND DURATION)** - The extent to which relationships are embedded and its duration as a factor in maintaining collaborative relationships and value creating exchanges through personal relationships (attitudes & behaviours).

1.3.3 Combined Transactional and Relational (Mixed)

The combined transactional and relational approach primarily combines some of the components of both the transactional with relational procurement approaches in the delivery and retention of value.

1.3.4 Value Definition

Value classed as relationship performance in this research study is about the economic outcome that comes from an exchange relationship. Some measures of economic outcomes such as sales volume, margins, etc. Value includes all of those variables that enable the provision of goods and services for the fulfilment of an organisation's requirements and also delivers both direct and indirect benefits to the partners in an exchange relationship. This

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could be direct cost benefit, savings, enhanced service delivery, etc. or indirect benefits which could be the total support services, trust, communication, relationship management etc. This theme is further discussed in Chapter 2.15 below.

Therefore as a response to the challenges set out above and in order to meet the efficiency and savings challenge, this research considers the concept of value as a way of developing effective mitigations. Value in this context is seen as the economic outcome that comes from an exchange relationship. It includes those variables that enable the provision of goods and services for the fulfilment of an organisation's requirements and also delivers both direct and indirect benefits to the partners in an exchange relationship. This could be direct cost benefit, savings, enhanced service delivery, and others or indirect benefits which could be the total support services, trust, communication, relationship management and others. Once value is created, it is important that they are indeed delivered and retained otherwise they become eroded over time. Value also includes a consideration of those factors that contribute to the creation of value for money which includes supplier's responsiveness, flexibility, dependability, capability, lowest evaluated prices or competitive value, delivery on-time, reduced operating cost and quality, (Manso and Nikas, 2015: 458).

Value creation and retention were driven by the UK Public Sector through a number of cross cutting initiatives such as the centralisation of the procurement function e.g. the establishment of the Crown Commercial Service (CCS) in 2014 for the procurement of common goods and services. The establishment of the Crown Representative function within the Cabinet Office to ensure the appropriate aggregation and consolidation of spend with strategic suppliers. The increasing use of cross government frameworks and contracts to achieve economies of scale, the introduction of innovative practices, peer to peer collaboration amongst Government Departments and the utilisation/exploitation of shared assets. As a result of these initiatives the UK public procurement reported savings of £3 billion during the 2010–2011 financial year and £5.4 billion during the 2013–2014 financial

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year (Efficiency and Reform Group, 2014). According to a House of Commons Report, these savings were achieved through the centralisation of the procurement of some common goods and services, contracts re-negotiations and significant spend controls imposed in a number of the public spend areas such as communication, IT (Technology) and consultancy (House of Commons, 2013).

This is at a time when the dawn of the economic downturn has brought with it additional economic pressures and supplier vulnerabilities on public sector supply chains and the respective supply chain managers who are expected to remain extremely vigilant especially in respect of commercial intelligence on the continued viability of their supply chain partners. Similarly, the increased awareness around the information asset ownership of public sector data and information has become increasingly more important to public sector procurement officials especially in their role as contracts and commercial managers with clear accountability for managing out-sourced service provisions and the attendant data security and confidentiality provisions. These events coupled with the global financial crisis brought about significant effects on the UK public sector procurement with the imposition of austerity measures, spending review efficiency challenges, enhanced financial and commercial governance largely led by the Cabinet Office and the need to generate large scale efficiency savings (Prowle and Harradine, 2014).

1.4 Thesis Overview

This section describes the thesis overview and presents the structure and context of the research.

It begins in Chapter 1 with the introduction where the research background into the UK Public Sector procurement is clearly set out. The chapter considers various procurement approaches and offers up a definition of value which is a core theme within this research.

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Chapter 2 focuses on the critical review of relevant literature in the research area which is the transformation of the UK public procurement from transactional/relational practice to strategic commercial management in order to ensure the creation and retention of added value. The chapter provides a critical evaluation of the prior knowledge created in two distinct areas in both the public and private sector procurement which are a) the transition from transactional and strategic procurement to strategic commercial management and b) the adoption of appropriate procurement approaches. This chapter also provides an analysis of what value means and draws a link between value and the various procurement approaches considered in this research. The chapter provides an analysis of the IT procurement service and considers the various procurement approaches adopted within the UK Public Sector by critically analysing the procurement approaches adopted by three UK Public Sector Departments namely the Department for Work and Pensions, Her Majesty's Revenue and Customs and the Ministry of Justice. The chapter concludes by providing an analysis of the knowledge gap that exists, the research issues considered, the study's research objectives, the scope of the study, the conceptual model adopted and the hypotheses developed.

Chapter 3 provides the research paradigm, the methodology and the research design. It develops the methodological approach and provides the basis for theory selection including a discussion of the theoretical influences and the theories underpinning this research. The chapter also discusses the data collection methodology and presents the measurement and validity output.

Chapter 4 presents the results of the construct reliability and validity tests and discusses the methodology and model testing for the quantitative analysis. The chapter provides the analysis of the results of the quantitative elements of the study. It discusses the best procurement approach adopted in the UK Public Sector and presents options for leveraging them.

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Chapter 5 presents the methodology for the qualitative analysis including the validity and reliability of the analysis. The chapter discusses the stages and process involved with the data coding and codification in NVivo as utilised in this research. It provides an analysis of the critical success factors for implementing the best performing approach in the UK Public Procurement and discusses their deliverability. The chapter also develops a framework for for value delivery and retention in the UK public sector for practitioners.

Chapter 6 presents the final conclusions and the research distinctive achievements. It summarises the research contributions, identifies the limitations of the research and provides some directions for future research in this area of study.

1.5 Summary

This chapter considered the UK Public Sector procurement landscape as inefficient, fragmented and uncoordinated, with a number of central purchasing bodies that have evolved in an unplanned manner, over time, with varying business models, without out a clear common vision and no clear governance. These organisations have the remit of aggregating the business volumes of subscribing members and providing a framework of contracts to fulfil its customer requirements and thus deliver value in the process.

It saw value as the economic outcome that comes from an exchange relationship. The delivery of which is driven by the UK Public Sector through a number of cross cutting initiatives such as the centralisation of the procurement function e.g. the establishment of the Crown Commercial Service (CCS) in 2014 for the procurement of common goods and services. The increasing use of cross government frameworks and contracts to achieve economies of scale, the introduction of innovative practices, peer to peer collaboration amongst Government Departments and the utilisation/exploitation of shared assets. It suggests that collaborative procurement amongst Government Departments and across the

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wider public sector can contribute to the delivery of the efficiency and cost savings challenges.

It identified a number of procurement approaches including transactional, relational and the mixed or combined procurement approach. It defines the transactional procurement approach as procurement between buyer and seller which is open to multiple suppliers, short term in nature, driven largely by price, often opportunistic and delivered through highly prescriptive and sophisticatedly written and binding contracts. Relational procurement on the other hand is defined as trust based long-term procurement relationships where buyers and sellers cooperate, collaborate, share information, are committed, interdependent and engages in joint problem-solving. It saw the combined transactional and relational approach as primarily the combination of some of the components of both the transactional with relational procurement approaches in the delivery and retention of value.

The study sets out the basis for strategic commercial management which it conceptualises as the adoption of the most appropriate and relevant procurement approach in determining supply chain management relationships i.e. transactional, relational or a combination of both approaches as appropriate. This is also informed by the influences that the structure and configuration of supply chain management has on the creation and retention of added value. These themes in addition to the review of relevant literature, the current procurement approaches adopted in a number of UK Government Departments and a further analysis of the concept of value in the context of this research will be discussed in Chapter 2.

CHAPTER TWO – LITERATURE REVIEW

2.1 Introduction and Methodology

This chapter focuses on the critical review of relevant literature in the field of the research area which is the transformation of the UK public procurement from transactional/relational practice to strategic commercial management in order to ensure the creation and retention of added value. The chapter provides a critical evaluation of the current information and created knowledge contained in two distinct areas in both the public and private sector procurement which are a) the transition from transactional and strategic procurement to strategic commercial management and b) the adoption of appropriate procurement approaches. It provides an analysis of the procurement approaches adopted in three Government Departments namely the Department for Work and Pensions, Her Majesty's revenue and Customs and the Ministry of Justice. It builds and relates the definition of value to the procurement approaches adopted and covers the existing knowledge gap, research issues, the research objectives, the scope of the study, the conceptual framework and the research hypotheses

The literature review commences with the understanding of procurement's role in the value creation and value retention from managing the well over £175b spend within the UK public sector (HM Treasury, 2008a: 32 - 33 & 96). It explores some of the perceptions of public sector procurement groups and the ways in which they are structured to help create added value. It focuses on aspects of transactional and relational procurement and the need to transition from these structures to a much more value adding and value retention/protection mode of strategic commercial management. Empirical evidence are presented in support of the research issues as identified in chapter one, some useful methodologies are appraised and some conceptual models developed utilising various frameworks and theories used in existing literature. The reviewed literature is interjected with own views and interpretations in order to arrive at a holistic understanding of the subject being investigated.

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The primary search for relevant literature concentrated largely on literature relating to procurement, purchasing, sourcing, strategic sourcing, strategic outsourcing, supply chain management, partnership, collaboration, the UK public sector and value. This search identified 670 articles and publications that met the search criteria as described above. A further search was conducted with a specific focus on public sector procurement to specifically limit and narrow the search findings to the specific area of focus which is public sector in general and more specifically the UK Public Sector. The abstracts and key words from the resulting search was then reviewed to identify more relevant and related articles on transactional and relational procurement generally but more specifically within the UK public sector.

The list of further references contained in the selected articles were then reviewed to ensure that additional relevant and related articles were not omitted from the search. This was then augmented with a search for UK Public Sector publications such as the National Audit Office (NAO) and Public Accounts Committee (PAC) Reports and relevant documentation from Government Departments including Her Majesty's Treasury (HMT), the Department for Work and Pensions (DWP), the Ministry of Justice (MOJ) and Her Majesty's Revenue and Customs (HMRC). A combination of these searches resulted in a final list of reviewed articles and documents of 79 as shown in Figure 2.1: Literature Review Method.

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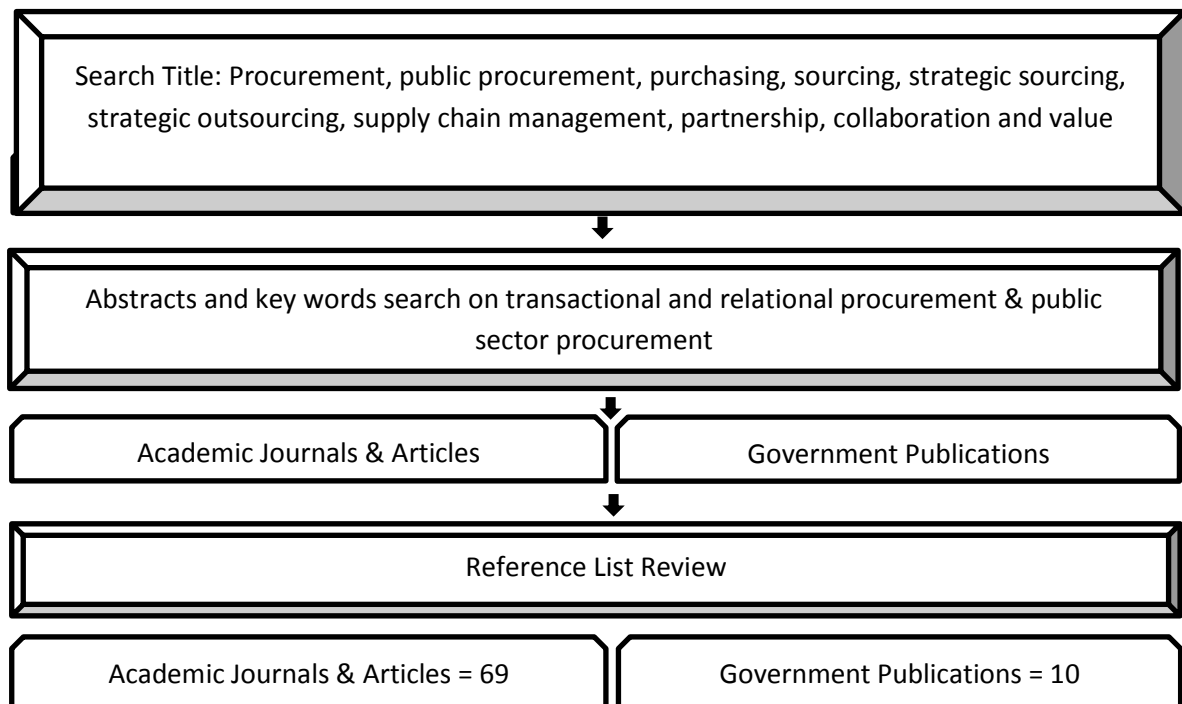


Figure 2.1: Literature Review Method

The approach to this literature review and the entire research is limited to the identified public procurement approaches which is summarised here as transactional, relational or mixed which is a combination of transactional and relational approaches in the creation and retention of value within the UK public procurement. This review therefore considers journal articles in the broader areas of procurement, public procurement, purchasing, sourcing, strategic sourcing, strategic outsourcing, supply chain management, partnership, collaboration, the UK public sector and value to be in scope of the review.

The articles utilised in this literature review are published in the list of journals identified in Figure 2.2 below, this also includes the frequency with which the respective journals were utilised.

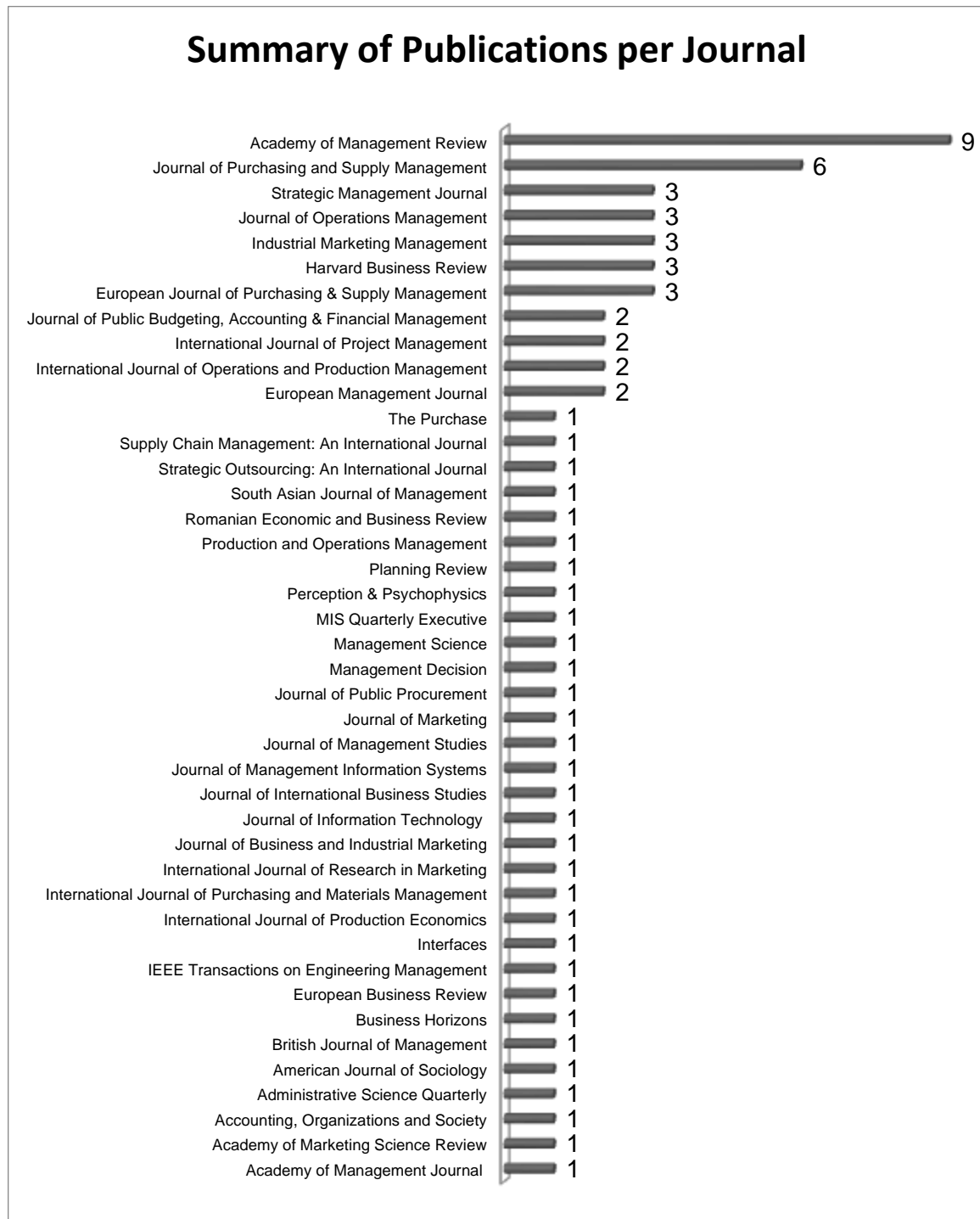


Figure 2.2: The list of Journals and their frequency of use in the Study

There is limited publication in the field of public sector procurement methodologies especially those linked to the core research area of the adoption of relational and transactional approaches to the creation and retention of value in the UK public sector. However, there

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are related publications in the broad area of sourcing, strategic sourcing, relational and transactional capabilities; these are themes which feature significantly throughout this research. Some of these literature reviews includes Pagano (2009) on relational capabilities in global sourcing, Liu et al. (2009) on transactional and relational mechanisms, Kausik and Mahadevan (2012) on strategic sourcing between 1997 and 2010, and Shook et al. (2009) on the top ten most important theories being applied in sourcing. Other related literature reviews are Kamalahmadi and Parast (2016) on the principles of enterprise and supply chain resilience, Ning and Ling (2015) on adopting relational transaction strategies, Sande and Haugland (2015) on formal contracting and relational contracting and Cao, Z. and Lumineau, F. (2015) on contractual and relational governance.

None of the reviews identified above directly link or connect the complexity of the UK Public Sector Procurement to the adoption of the most appropriate procurement method to enable the creation and retention of value. This research and the associated literature review seek to achieve this objective. This literature review therefore builds on and extends the existing body of knowledge to include their relevance to the UK public sector. It also reviews and analyses relevant articles in related subject matter areas, draws appropriate linkages and presents a transparent view of prevailing thinking.

The literature review and number of journal publications by year presented in Figure 2.3 below indicates that there were peaks in the number of articles published with related themes in 2007 (8), 2009 (6) and 2005 (5), whereas in the early years between 1961 and 1999 the volume of publication were relatively limited. The frequency of publication for the rest of the period remained flat and consistently low.

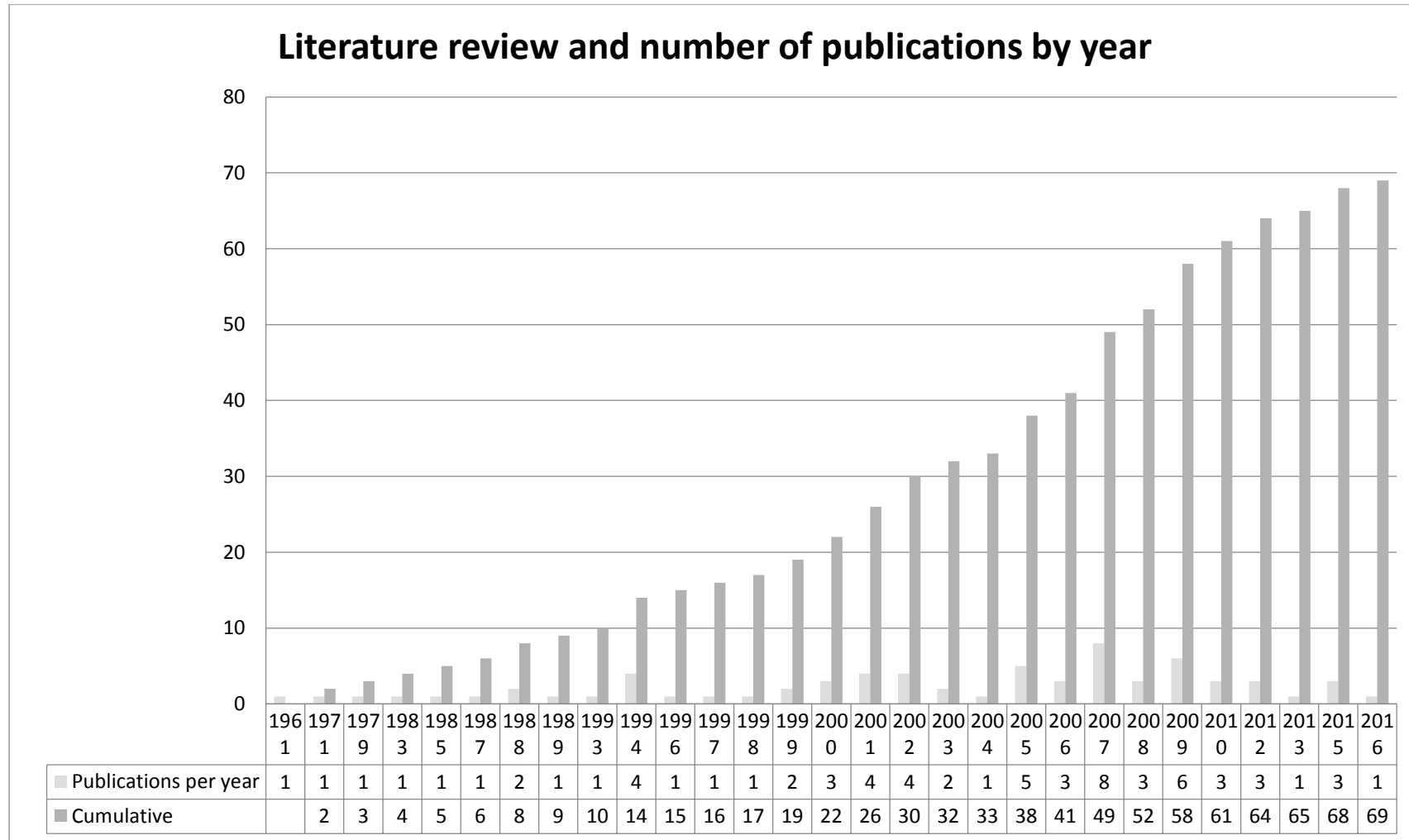


Figure 2.3: Literature review and number of journal publications by year

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The research areas of interests and the emerging themes from the search are presented in Table 2.1 below. The table provides an illustration of the key research areas and the themes used as drawn from previous and related research and utilised in this study. They are output and recurring themes from journal articles reviewed in the context of this research.

Research areas of Interest	Themes
Critical Success Factors	<ul style="list-style-type: none"> • Critical Success factors for managing purchasing groups
Public Sector Procurement	<ul style="list-style-type: none"> • The impact of Government and EU public procurement policies and regulations on public sector procurement • Understanding Government procurement, past and current developments • Innovative practices in public procurement procurements and prevailing procurement approaches • Understanding buyer and supplier behaviour including market forces • Evaluation of the buyer and supplier behaviours in both the public and private sector
Relational Procurement	<ul style="list-style-type: none"> • A general theory of network governance: exchange conditions and social mechanisms • Interdependency, contracting, and relational behaviour in public procurement • Inter firm behaviour and goal alignment in relational exchanges • Public procurement, competition and partnership • The development and implementation of purchasing partnerships
Strategic Sourcing & Outsourcing	<ul style="list-style-type: none"> • The Competitive bidding process in the public sector • The role of benchmarking in public procurement • Evaluation of the total cost of ownership in sourcing decisions • Organisational design implications of global sourcing • Global Sourcing trends and strategic outsourcing • Strategic Sourcing and Outsourcing
Strategic Supply Management	<ul style="list-style-type: none"> • Reviewing performance outcomes of different procurement approaches • An examination of strategic supply management benefits and performance implications • Critical research issues for managing supply-chain disruptions • Evaluating the factors that build successful supplier relationships • Understanding supplier selection and relationship practices • Contracts, norms, and plural form governance • Conceptual models for managing supply chain network risk • Adaptation of buying centre structure and the buying process

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	<ul style="list-style-type: none"> • Purchasing organisational roles and responsibilities in the public and private sector • The formation of buyer–supplier relationships: detailed contract drafting and close partner selection
Transactional and Relational Procurement	<ul style="list-style-type: none"> • A general theory of network governance: exchange conditions and social mechanisms • Contracts, norms, and plural form governance • Governing buyer–supplier relationships through transactional and relational mechanisms • The formation of buyer–supplier relationships: detailed contract drafting and close partner selection • Transaction costs, relational contracting and public private partnerships • Uncertainty, opportunism, and governance: the effects of volatility and ambiguity on formal and relational contracting
Transactional Procurement	<ul style="list-style-type: none"> • An empirical investigation of ex post transaction costs in franchised distribution channels • An empirical investigation of some antecedents of opportunism in a marketing channel • an examination of trust, contracts, and the legal environment in international channel relationships • Managing marketing channel opportunism • Opportunism in inter firm relationships: forms, outcomes, and solutions • Specific investment in marketing relationships: expropriation and bonding effects
Value	<ul style="list-style-type: none"> • A model of value creation supplier behaviours and their Impact on Reseller-Perceived Value • Conceptualising value for the customer • Credible commitments using hostages to support exchange • Economic and social satisfaction: measurement and relevance to marketing channel relationships • Evaluation of the impact of Return on Investment in driving supplier behaviour and value creation • The adoption of total cost of ownership in procurement decisions

Table 2.1: Research areas of interests and recurring themes

2.2 Recurring Themes and Latest Developments

The core premise of this study is centred on a number of key themes in the supply chain management, public sector procurement, procurement, procurement methods (transactional, relational or a mix of both transactional and relational) and value literature. Procurement methods as illustrated in Table 2.4 below represented a total of 37.54% of the total number of articles reviewed, within this, transactional represented 5.8%, relational 14.49% or the combination of both transactional and relational comprised of 21.74%, N=117.

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The second largest segment and the core measurable element within this study which is Value has 18.84%, this is followed closely by Critical Success Factors at 14.49% and Strategic Sourcing and Outsourcing at 10.14% with Public Procurement and Strategic Supply Management both at 5.5% respectively. This indicates that there is a large distribution of reviewed articles across the core themes that are connected with the core research objectives.

Topic	No of Articles	Percentage
Critical Success Factors	10	14.49%
Public Procurement	4	5.80%
Relational	10	14.49%
Research	2	2.90%
Strategic Sourcing and Outsourcing	7	10.14%
Strategic Supply Management	4	5.80%
Transactional	4	5.80%
Transactional and Relational	15	21.74%
Value	13	18.84%
Total	69	100.00%

Figure 2.4: Research areas of interests including the number and percentage of Journal articles utilised

There was a higher distribution of journal articles in related subject matter with 8 articles in 2007, 6 in 2005 and 16 in 2009 respectively. Outside of these exceptional years, the spread of articles are broadly well spread throughout the years. See Figure 2.5 below for the distribution of published articles utilised by research area and the year of publication.

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No of Publications by Research Area	1961	1971	1979	1983	1985	1987	1988	1989	1993	1994	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2012	2013	2015	2016	Total
Critical Success Factors	1		1			1	1	1		1	1										1	1				1			10	
Public Sector Procurement										1										2	1								4	
Relational Procurement Research									1	1		1	1	1				1				2	1	1				1	10	
																		1						1					2	
Strategic Sourcing & Outsourcing		1		1																1			1	1		2			7	
Strategic Supply Management													1			1				1								1	4	
Transactional and Relational Procurement					1					1				1	2		1	1	1					3	1	1		2	15	
Transactional Procurement																	1			1			1		1				4	
Value															1	3	1	1		1		5			1				13	
Total	1	1		1	1	1	1	1	1	4	1	1	2	2	3	4	4	2	1	6	2	8	3	6	3	3	1	3	1	69

Figure 2.5: Published articles utilised by research area and year of publication

2.3 Procurement Approaches (Transactional, Relational and Mixed)

As identified in Erridge and Nondi (1994: 172), a number of studies have made useful distinction between transactional and relational procurement methods in the past. Some of these studies include Giunipero (1986) traditional and world-class purchasing, and Stuart (1993) traditional and supplier partnership approaches. Others are Macbeth (1994) adversarial and collaborative relationships, Furlong et al. (1994) adversarial and partnership models, Mesquita and Brush (2008), Reuer and Arino (2007) and Ryall and Sampson (2009) contractual governance. Jayaraman et al. (2012), Li et al. (2010), Poppo et al. (2008), Zhou and Xu (2012), Liu et al. (2009), Poppo and Zenger (2002), Dyer and Singh (1998) and Malhotra and Murnighan (2002) on relational governance.

However none of these studies agree on the use and development of a common model and or a set of variables for understanding these distinctions and their application to the UK public sector value creation and retention. According to Erridge and Nondi (1994: 172) this divergence could be that different variables are appropriate for different sectors. This research study will therefore seek to identify a core set of characteristics/variables building on the existing body of knowledge in this field to help understand the research objectives. Some of the variables, models and purchasing characteristics used in these distinctions are captured in Table 2.2 below.

Public procurement, competition and partnership

Characteristic	Competition	Mixed	Partnership
Supplier selection	Solely tendering	Tendering and negotiation	Negotiation
Length of contract	1 year or less	1-3 years	Over 3 years
Number of suppliers	5 or more	2-5	1
Contractual relations	Very formal & rigid	Fairly formal and rigid	Flexible, informal
Communications sporadic	Very guarded & continuous	Fairly guarded but frequent	Open and with suppliers
Negotiation	Win-lose	Mixed system	Win-win
Joint activities	Little or none	Fairly extensive	Very extensive

Table 2.2: Procurement models and purchasing characteristics
Source: Erridge and Nondi, 1994: 173

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This framework is similar to the threefold framework summarised in Spekman (1988). This framework saw the traditional adversarial model as minimising the price of purchased goods and services as characterised by a movement away from price-based criteria to other performance criteria. It saw the collaborative/strategic partnerships as adopting a high level of purposeful cooperation to maintain a trading relationship over time. Conversely other studies have equally suggested that high trust and reliance on relational norms could reduce efficiency and self-enforcement (Wicks et al., 1999 and Wuyts and Geyskens, 2005). Additionally, Liu et al., (2009: 306) in their study opined that “malfeasance can be averted (i.e., opportunism can be restrained and relational performance improved) by trust and relational norms because participating members realize that transactional mechanisms alone make it too costly to engage in socially embedded economic activities and such relational mechanisms may evolve to discourage malfeasance” (Liu et al., 2009: 306). Similar findings were also reached in Granovetter (1985) and Jones et al. (1997). The mixed approach is seen as the practice in between the extremes of the competitive and partnership models, (Erridge and Nondi, 1994: 173).

2.4 Transactional/Clerical Procurement in the UK Public Sector

The role of Public Sector procurement is to effectively and efficiently manage the provision of goods and services for the delivery of public sector objectives through the respective supply chains. These supply chains represented in value terms during the 2008 period a total value of some £175b. It is this government purchasing volume and the complexity of government procurement that have made it more important than ever before (Thai and Grimm, 2000: 232) especially in making significant contributions to the various Government efficiency programmes.

Despite the sheer size, complexity and value of public sector procurement expenditure, procurement in the UK public sector has largely been viewed over the years as being predominantly clerical (Grimm, 1999: 28), characterised by high levels of public disclosure

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and a heavy reliance on the bid process (Osborne and Plastrik, 1997). The level of public scrutiny that is involved with public sector procurement has been noted as having a significant influence on the way this sector is structured and organised. Schiele and McCue (2006: 303) indicated that public purchasers are faced with continual scrutiny of their activities through audits and in-house reviews, intensive reviews by the media for any suggestion of mismanagement or impropriety, and an overwhelming number of required policies and procedures that characterise government decision-making. This pre-supposes that public sector procurement practitioners are much more concerned with adherence to processes and procedures rather than the creation of added value. It also implies that public sector procurement is much more aligned to transactional procurement rather than strategic sourcing as a consequence of the limitations imposed by public sector rules and other factors such as public perception. It has also been described as a clerical, process-oriented function that adds little value to purchase decisions (Schiele and McCue, 2006: 304).

Public procurement practitioners have been described as primarily concerned with satisfying the complex accountability processes of the government, an administrative principle, which is reinforced by recent failures of corporate financial governance (Matthews, 2005: 388). This study goes on to assert that a search of contemporary literature shows little evidence that public procurement has penetrated the theoretical boundaries of public management or strategic management despite the profession's efforts over more than a decade to develop its profile (Matthews, 2005: 388).

In Callender and Matthews (2000: 272) it is noted that as government organisations step hopefully into a new century, among the challenges they face will be the demands of the "New Purchasing" and persistent pressure to redefine the role of the purchasing practitioner in government. They added that those who manage the function usually influence a large share of organisational expenditure and must also cope with the demands of e-commerce, devolution of responsibility, partnering and strategic alliances, and the implications of globalisation within the context of an accountable public sector. Similarly Thai and Grimm

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(2000: 243) indicated that in the face of growing uneasiness by elected officials, service delivery managers, and citizens about rule-driven processes, inefficient systems, and poor management of resources, purchasing professionals are being challenged to develop new dynamic and adaptable structures.

Similar themes were also discussed in (Lawther and Martin, 2005: 214) that “public procurement officers are being encouraged to work with program managers and contractors to find creative ways to say: YES! In addition to the changing nature of their jobs, public procurement officers also find themselves working in new contracting areas”. They go on to add that “the growth in IT contracting is arguably the biggest challenge. Services contracting, information technology and knowledge development all require specialist contracting expertise and skills. The public procurement workforce of today is supposed to master all these contracting skill areas, as well as others and also to conduct operations in innovative ways”.

Edgell, Meister and Stamp (2008: 173) on the findings of the global sourcing trends in 2008 showed that “an economic slowdown will see a move back towards cost-driven outsourcing - despite the fact that, over the long term, service-driven or value-driven deals tend to deliver more stable, successful relationships. Greater emphasis is seen on post-signature support, governance, supplier management, and the role of the retained function”. The same study also concluded that “it is clear that many of the contract management mechanisms in place (e.g. governance regimes, service level measurement and reporting, balanced scorecards, gain-sharing, innovation and improvement forums, etc.) either are not being used or are being implemented poorly. Outsourcing customers generally will pay greater attention to the post-signature phase ... placing a greater emphasis on contract governance and management, and we are being asked more and more to help with the design and running of the retained function” (Edgell, Meister and Stamp, 2008: 175).

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Public procurement function and organisation must become commercial management in order to ensure that it understands the vast swathe of organisational issues, business plans, business strategy and the overarching business objectives if it is to be in a position to work with the supply chain so as to create and retain added value. Similarly and as identified In Lawther and Martin (2005: 215) a high degree of risk exists in terms of escalating costs, delays, and final products that do not perform as expected as a result of the often ill-defined scope and highly complex nature of procuring IT services. The study goes on to assert that public procurement officers face several hurdles when dealing with IT acquisition, identifying appropriate design criteria, system requirements, and acceptance standards can be difficult at best because of these.

2.5 Strategic Sourcing in the UK public Sector

With the increasing growth in public sector contract outsourcing and contestability (make or buy), the size of the retained organisation is being increasingly asked to do more especially in managing highly complex outsourced contracts, managing commercial and delivery risks, administering long-term contracts, managing the compliance and assurance of existing and future contracts and commercial frameworks whilst creating added value. Outsourcing also allows organisations to increase their efficiency and effectiveness in the provision and delivery of contracted services (Walker et al., 2006: 96).

In addition to cost reduction, Walker et al. (2006: 96) identified access to expertise which allows the retained organisation to focus on the delivery of its core activities. The study also showed that out sourced service providers can leverage their economies of scope and scale for the benefit of the purchaser; this is illustrated with an example on how IT services are procured within the UK public sector where 'EDS (HP) is seen as one of the biggest providers of information management services in the world. It is estimated that EDS (HP) has between 67% and 81% of all published UK Government outsourcing contracts, handling at least some of the data needs of the Dept. of Social Security (DWP), the NHS, the Driver

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and Vehicle Licensing Agency and the Inland Revenue (HMRC), the Ministry of Defence' (Walker et al., 2006: 97).

As a result and added to the requirement to do more with less within the UK public sector environment, UK public sector procurement groups are increasingly being required to develop more and more strategic sourcing skills, competences and capabilities. They are equally being tasked to develop new and innovative strategic sourcing methodologies and strategies to help with the delivery of highly complex public sector contracts and provisions.

Lawther and Martin (2005: 213) asserted that "in this new paradigm, public procurement is being encouraged to abandon its traditional ways of doing business and to move towards more relationship contracting. The age-old focus on the process of buying, it is said, should shift to concentrate more on the goals of the acquisition". This essentially refers to strategically sourcing public sector procurement requirements not based on transactional methods but based on relational methods and premised on a set of defined outcomes or outputs i.e. the goals of the acquisition. The study goes on to indicate that relational contracting such as partnerships are becoming increasingly necessary as public procurement and contracting become more complex and risky and that the high levels of complexity and risk in public procurement and contracting today have changed how the public and private sectors must interact. They saw this approach which is predicated on a partnership relationship between the public and private as perhaps the only viable solution in public sector contracting (Lawther and Martin, 2005: 213).

The nature and type of relationships that are developed be it transactional (seen as the tactical day to day organisational purchasing transactions as defined by contractual instruments and purchase orders and largely process oriented). Relational (seen as the supplier relationships and collaborations that exists between organisations and their service

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providers with a collaborative focus on the goals of the acquisition) which has traditionally been dependent on the strategic importance and the specificity of the goods and services involved in the procurement as depicted in Figure 2.6 below. The degree of integration and the strategic importance of the goods or services will largely inform the extent to which either tactical i.e. the traditional award of contract or the relational methods i.e. vertical integration is utilised. This view has largely and over time influenced some of the decisions made within the public and to some extent the private sector procurement groups in deciding which procurement methods to adopt.

Prior to the United Kingdom Public Contracts Regulations 2006 (Legislation.gov.uk, 2006) which led to the introduction of the competitive dialogue process into EU public procurement, most of the public sector procurement groups were limited to the traditional award of contract. Since the advent of the United Kingdom Public Contracts Regulations 2006, more and more UK public procurement groups have explored to varying degrees aspects of Joint venture and to some extent vertical integration with both the private sector supply chain and other public bodies. These concepts however has remained pervasive throughout the private sector where various forms of supply chain convergence assists organisations to remain sustainable and to appropriate significant value as a result of these forms of contracting.

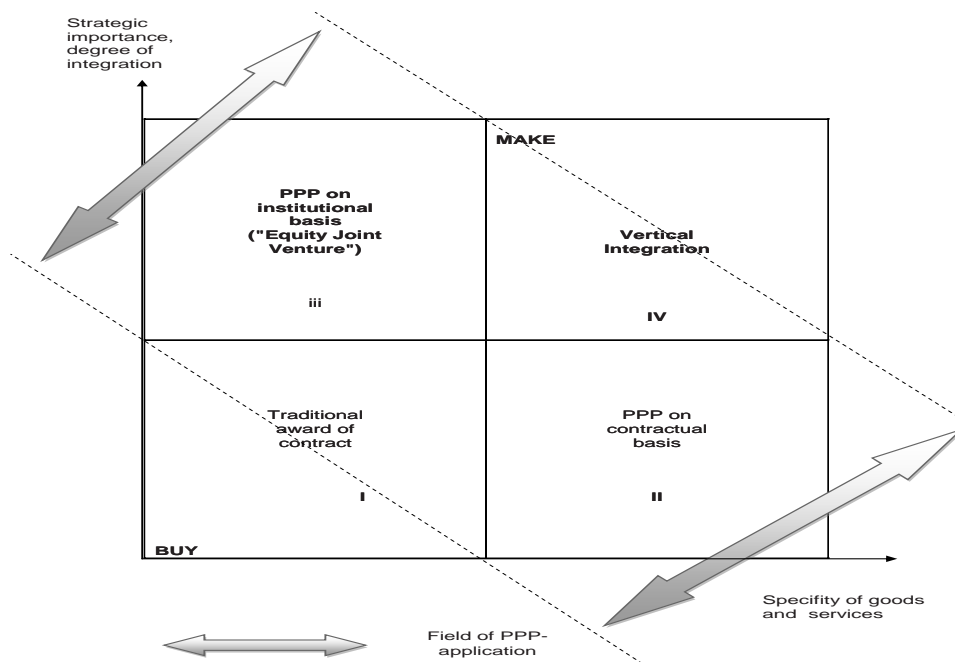


Figure 2.6: PPP (Public Private Partnership) portfolio
Source: Naschold et al., 2000 and Commission of the European Communities, 2004.

Most public procurements of IT Services or such other procurement categories that requires a high degree of asset specificity are typically based on long term relationships with the service providers, “these long-term relationships require long-term contracts ... some of which can run for 10, 15 or even 30 years, present new challenges for public procurement in general and for contract administration specifically” (Lawther and Martin, 2005: 216). The study also identified that in order to achieve the goals or outcomes of the procurement, less adherence to specific contract language and a greater acceptance of the need for communication, dialogue, negotiations and compromise over the life of the contract is generally required (Lawther and Martin, 2005: 216).

Public procurement must overtime transition from tactical, clerical or transactional procurement to relational/strategic commercial management as a response to the changing

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demands of the public sector environment. This is depicted in Table 2.3 below which describes the specific tasks related to the evolvement of purchasing. Although the pairs of analogy between the tactical and the strategic quadrant are not matched per se e.g. purchase order issuance and supplier alliances, however, some parallels can be drawn between the relationship between excess inventory and global sourcing, unit cost focus and procurement planning and finally between local vendors and spend management.

Tactical (Historic)	Strategic (Leading)
Purchase order issuance	Supplier alliances
Vendor file maintenance	Cost management
Excess inventory	Global Sourcing
Order tracking	Life cycle costing
Unit cost focus	Procurement planning
Local vendors	Spend management

Table 2.3: Specific tasks related to the evolvement of purchasing
Source: Matthews, 2005: 390

Lian and Laing (2004: 248) saw transactional purchasing as being underpinned by neo-classical economic assumptions, in particular that in a perfectly competitive market, that is, open market competition is the most efficient form of exchange and that such exchanges are viewed as discrete arms-length, one-off transactions. The study goes on to show that “within the public sector, the transactional paradigm has been embraced by the European Union (EU) and United Kingdom (UK) governments, as evidenced in purchasing guidance for public sector organisations which emphasises competitive tendering as the means of optimising procurement efficiency” (HM Treasury, 2008b; Lian and Laing, 2004: 248).

Lian and Laing (2004: 254) in their research study of public sector purchasing of health services asserted that “in the purchasing of an intangible and complex professional service

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such as occupational health, there is evidence that despite the impact of public sector purchasing environment, some public sector organisations, like their private sector counterparts, adopted a more relational stance in purchasing". They concluded that the tendency towards utilising transactional mechanisms is evident throughout the procurement process from selection to post purchase evaluation and that this may be due to pressure to adhere to 'one size fits all' purchasing guidelines or simply a lack of awareness of the flexibility allowed in current purchasing guidelines. There is also the perception that public sectors felt under pressure to be accountable and perceived that transactional open tenders was the main method in which to achieve this aim (Lian and Laing, 2004: 254).

It is therefore important to understand the increasing complexities that exist in public sector procurement and thus the need to develop new and appropriate approaches to meet current public sector efficiency targets. However and as indicated by Lian and Laing (2004: 254) "in one specific context with several service and market characteristics kept fixed, the suggestion of more transactional approaches being utilised by public sector organisations implies a lack of flexibility in the management of the procurement process".

2.6 The EU and UK Governments Procurement Regulations and Guidance

The EU and UK Governments regularly issues and updates existing Directives, Regulations, Policies and associated guidance maintaining consistency and adherence to the EU principles of fairness, equality of treatment, transparency and open competition as requirements for effecting public sector procurement. The UK Public Contracts Regulation 2006 (Legislation.gov.uk, 2006) was aimed at bringing existing procurement directives up to date to reflect current procurement practices. The regulation introduced the competitive dialogue procedure which extended the basic EU procurement procedures to 4 including the open, restricted, negotiated and competitive dialogue procedures. The competitive dialogue procedure (encourages collaboration and relational procurement) allows the contracting authority to discuss the contract specifications with interested bidders before finalising them

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and is intended to give the public sector a better understanding of its requirements and the different technical means of achieving them. This procedure may only be used for particularly complex contracts and is specifically targeted at PPP/PFI projects (PLC – Outsourcing, 2009: 25). The competitive dialogue procedure allows public procurement authorities to enter into a dialogue with the preferred bidder to jointly agree mutually beneficial outcomes. It does however limit and narrow the competitiveness of the bidding process.

The UK Public Contracts Regulations 2015 (Legislation.gov.uk, 2015) has re-invigorated the use of Competitive Dialogue in specific circumstances including the innovation partnership procedure where procurement awards can be made by contracting authorities to one or more suppliers from a selection of those who responded to the request to tender using the negotiated procedure. The UK Public Contracts Regulations 2015 also allows contracting authorities to award a contract using the ‘negotiated procedure without prior publication’ by approaching one or more suppliers seeking to negotiate the terms of the contract (Legislation.gov.uk, 2015).

The competitive dialogue procedure lends itself to extensive collaboration and partnerships within the UK public sector environment by opening up opportunities for such collaboration with the bidding partners. This procedure provides the UK public sector procurement groups with the legal instrument to engage in much more relational procurement activities and one that proactively engages with supply chain partners to develop effective and efficient supply chain solutions whilst creating added value for public sector procurement requirements. This point is further emphasised in Lindgreen et al. (2009: 149) by proposing that “the relational approach, based on the advantages of cooperation, centres on shared resources, joint product development, and process redesign, which improve efficiency (in procurement and value creation) for both the buyer and the seller”.

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In order to be able to manage these enhanced procurement procedures, it is important that public sector procurement groups are organised and structured appropriately. It is equally important that appropriate supplier engagements and sourcing strategies are developed by public sector procurement organisations. With new sourcing methodologies that will move aspects of public sector procurement from transactional or relational practice to strategic commercial management are developed and become well embedded in the procurement culture. Therefore transactional and relational theories will be used as conceptual frameworks in developing appropriate responses to the research issues in this investigative research.

In Lindgreen et al. (2009: 149) it is noted that the establishment and development of supplier relationships based on cooperation and partnership and the simultaneous and complementary need for both value creation and cost cutting have irreversibly changed the role of purchasing in business-to-business marketing. The study asserts that instead of its traditional ancillary role, purchasing today seeks to play a strategic role.

Whilst transactional procurement methods continues to be used within public sector procurement groups in deciding the acquisition and contracting for public sector goods and services, this procurement practice is largely related to commoditised goods and services. A number of these groups since the advent of the European Union Public Contracts Regulations 2006 have engaged in various aspects of relational procurement methods especially within the Local Authority procurement sector where extensive supply chain networking allows smaller contracting authorities to collaborate through volume aggregation for delivery through a consortium type supply chain arrangement. In this context, the portfolio analysis grid can be used to segment the types of procurement categories against which appropriate procurement practice could be adopted. This is depicted below in Figure 2.7 which provides a breakdown of the procurement commodities/categories relative to the degree of market difficulty, spend and the recommended procurement approach. Some of

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these variables and assumptions will be further tested during the course of this research. The portfolio analysis indicated below links directly to the contingency theory which stipulates that the adopted procurement approach should be contingent on the criticality, risk or market difficulty relative impact of the cost or spend. It segments the approach into four distinct component parts with each relevant to the management of specific categories of spend. These component parts are acquisition/routine (transactional), leverage (transactional), critical/bottleneck/technical (relational) and strategic/critical (relational).

High Portfolio analysis (Kraljic Matrix)

Criticality/ Risk/ Market difficulty	Critical /Bottle neck/Technical (Relational) High risk procurement, criticality of service delivery, use of multiple suppliers and secondary contracts, e.g. Secure Print, HR Services, Scanning, Contact Centre Services, Postal, Mail and Courier and Specialist Services.	Strategic /Critical (Relational) High risk and high value procurements, requires project management, partnering and strategic commercial management e.g. Estates and FM, Technology, Financial and Banking Services, Health and Employment Services.
	Acquisition/ Routine (Transactional) Low risk and low value procurement, benefits from e-procurement solutions, e-auctions, purchasing cards, dynamic purchasing market place, e.g. are Stationery, PC consumables, Taxis and Office Machines.	Leverage (Transactional) Low risk and higher value procurement such as bulk supplies e.g. Competition IT equipment, Rail and Air travel, Printed items, Training, Temporary (admin) labour and Hire cars.

Low Spend/Cost Impact High

Figure 2.7: The Kraljic portfolio analysis grid with category management
 Source: Adapted from Northlanarkshire.gov.uk, 2009: pp 52-53 and Kraljic, 1983.

2.7 Forms of Contracting and Relationship types adopted within the UK Public Sector.

Lawther and Martin (2005: 214) identified the government procurement workforce crisis, the changing role of the procurement officer, contracting for information technology (IT) and knowledge generation, competitive contract negotiations, risk management and the administration of long-term contracts as some of the major trends in the US that have combined to promote the increased use of public procurement partnerships. These trends are equally similar to the pressure on the UK public sector in its efforts to engage with the economic reform agenda and the role of public sector procurement in this regard. They described most government contractual relationships as short term in nature with clearly defined start and stop points and identified partnerships as involving more flexible, dynamic and evolving relationships in order to be effective (Lawther and Martin, 2005: 216).

Accordingly, public procurement partnerships is conceived as “being used by governments to provide core public services, acquire services, IT and knowledge development as well as address ‘messy’ social problems that require harnessing the collective energies of the governmental, business and non-profit (third) sectors”. (Lawther and Martin, 2005: 219).

A number of contracting and relationship types are variedly adopted within the UK public sector, most notable of these are general outsourcing, Public and Private Partnerships (PPP), Private Finance Initiative (PFI), Special Multi-Purpose Vehicles (SPV) such as Govco (Government company), Collaborative Sourcing, Networking, Joint Ventures, Strategic Alliances, Partnership Sourcing, and Mutual, amongst others. The need to reduce public sector expenditure and borrowing has increasingly driven the UK Government to explore the potential gains that could be secured from engaging with the private sector for the provision of public services.

PPPs including in the UK the PFI were contextualised by Parker and Hartley (2003: 97) as being part of a “wider policy of ‘privatisation’ based on the expectation that the private sector provides services more efficiently and more effectively than the public sector. PPPs/PFIs

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permit an expansion of infrastructure provision; an expansion beyond what the state on its own could achieve given budgetary constraints and a lack of project management skills”. However the sustainability, total acquisition costs and overall realisable benefits associated with these partnerships over the longer term remains questionable.

There is a generally held presumption within Government Procurement cycles that public and private sector collaborations through Special Multi-purpose vehicles such as Networking, joint ventures, strategic alliances, partnership sourcing, mutual, etc. delivers significantly more added value when compared to traditional public procurement methods.

The UK Government is keen to promote the engagement of the private sector through cooperatives, mutual, alliances, Govcos and joint ventures in the delivery of public services, this study will investigate the application of a number of these concepts in the provision of Government services, additionally it will explore the possibility of leveraging common solutions, assets, shared services and centralised procurements across the wider UK public sector.

2.8 Partnerships in the Public Sector

In order for public sector procurement professionals to deliver added value, manage the wide ranging portfolio of activities, access the core competences and capabilities of private sector organisations and secure additional funds to finance appropriate projects, they often encourage collaboration between suppliers and public sector bodies. These arrangements are usually manifested through partnership arrangements which often results in PPP, PFI and other forms of alliances, partnerships and collaborations between the two (private and public) sectors. This is evidenced in the establishment with the UK public sector by the setup of My Civil Service Pension (MyCSP) – a mutual set up by ex-government bodies in a mutual collaboration with Government to deliver the civil service pensions. Similarly the public/private sector partnership arrangement between the Government and Sopra Steria was set up in 2013 as part of the Next Generation Shared Services under the auspices of

the Integrated Shared Service Centre 2 (ISSC2) framework for the provision of shared services to Government.

Public sector procurement partnerships are premised on the relationships between the partnering organisations, it very often requires the closer collaboration of several private sector organisations united by a common objective of delivering an outcome either through a prime contracting process or via consortium type arrangements which are set up with the aim of achieving mutual benefits.

In Jost et al. (2005: 340) it is described that “the most common structures used for consortium arrangements are joint ventures between a supplier and the client, special purpose vehicles set up by several supplier companies for a given project, or consortia with one prime contractor and several subcontractors”. This study goes on to indicate that the choice of partnership type is dependent on a number of factors notably: “the risk appetite of the parties involved (e.g. joint ventures place a premium on gain share rather than risk minimization), the duration of the project (e.g. long term projects under the government’s Private Finance Initiative are usually run through a special purpose vehicle), or the nature of the task (e.g. IT or systems implementations are mostly managed by consortia led by a prime contractor)” (Jost et al., 2005: 340).

2.9 IT Procurement Service Commercial Management

The primary focus of this research will be on the IT procurement category management. This category can be structured in IT service towers as described below:

- Hosting – providing data centre support of mainframes and application servers including output print handling;
- Desktop – providing mainly desktops, laptops and other devices and services including document storage, e-mail intranet, internet access and overarching security controls for access;

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- Application Development – providing design, development and testing of business applications;
- Application Support and Maintenance – providing support and maintenance of business applications and
- Service Integration and Management (SIAM) – providing coordination of service delivery across the towers including Service Desk, ITIL processes, testing governance and security management.

Within this category, the research will focus primarily on the Desktop Tower in order to determine which of the procurement methods – transactional, relational or the combination of both is more appropriate for the creation and retention of value within the UK public sector. The Desktop Tower lends itself naturally to either of the procurement methods. However, it is important to identify the various composition and component of each of the IT Service Towers primarily to achieve an understanding of the distribution and configuration of each of the respective IT services.

2.9.1 Applications Development Services

User services:

- Delivery of new applications
- Delivery of new business function in existing applications
- Vendor management

Control services:

Finance management
Architecture input &

Supporting services:

- Requirements analysis
- Functional design
- Technical design
- Coding

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- S/W Vendor development lifecycle management
- Unit testing
- System testing
- Integration testing
- User acceptance testing
- Delivery to Operations
- Project management
- Application services transition (to application support & maintenance)

2.9.2 Desktop Services

Local User services:	Remote User services:
Desktop PC environment Laptop PC environment PDA and other mobile support Access devices Support services: Desk-side support Moves, adds and changes New or amended services Hardware maintenance Server operation Hardware provision: Hardware provision and refresh	Authentication services Directory services File (user & group data) services Access to DWP mainframe systems Office (user) print services Mail/Messaging services Intranet services Support services: Software maintenance License management Server operation Software provision : Common Operating environment (Systems software and applications) provision and refresh Infrastructure services: Network (DNS, WINS etc.) services Relevant hosting provision and management Systems management services: Software distribution Data management (backup, archive, restore) Account and security administration Alert management Performance management

Table 2.4: IT Desktop Services

2.9.3 Networks Services

User services:	Support services:
<p>LAN services (excluding building cabling in DWP offices)</p> <p>WAN services</p> <p>RAS/VPN services</p> <p>Internet access</p> <p>External (3rd party) access and gateways</p> <p>Voice services (desk phone, mobile phone, voice mail)</p> <p>Video conferencing</p> <p>Call centre telephony services</p> <p>DHCP services</p> <p>Infrastructure services:</p> <p>Hosting provision and management for this tower</p> <p>Systems management:</p> <p>Inventory control</p> <p>Account and security administration</p> <p>Software distribution</p> <p>Data management (backup, archive, restore)</p> <p>Alert management</p> <p>Performance management</p>	<p>Desk-side support</p> <p>Moves, adds and changes</p> <p>Hardware maintenance</p> <p>Software maintenance</p> <p>License management</p> <p>Network operation</p> <p>Hardware and Software provision:</p> <p>Hardware provision and refresh</p> <p>Network software provision and refresh</p> <p>Control services:</p> <p>Problem, incident, change & configuration management</p> <p>Impacting of Change</p> <p>Project Management</p> <p>Release management</p> <p>SLA management</p> <p>Asset management</p> <p>Capacity management</p> <p>Testing & validation</p> <p>Security management</p> <p>Disaster recovery management</p> <p>Finance management</p> <p>Architecture input & compliance</p> <p>Vendor management</p>

Table 2.5: IT Network Services

2.9.4 Hosting - Application Servers

User services:	Support services:
<p>Mainframe based application services Mainframe access gateways Intel / Microsoft based application servers UNIX based application servers Application terminal servers Database administration on mainframe / midrange servers Development & test environments</p> <p>Infrastructure services: Data centre provision and management</p> <p>Systems management: Inventory control Account and security administration Software distribution Data management (backup, archive, restore) Alert management Performance management</p>	<p>Hardware maintenance Software maintenance License management Server operation Batch operation Application operations</p> <p>Hardware and Software provision: Hardware provision and refresh Standard Operating environment (O/S, systems software and common application software) provision and refresh</p> <p>Control services: Problem, incident, change & configuration management Impacting of Change Project Management Release management SLA management Asset & Capacity management Testing & validation (including operational readiness testing) Security management (Inc. virus etc.) Disaster recovery management Finance management Architecture input & compliance Vendor management</p>

Table 2.6: IT Hosting – Application Servers

2.9.5 Hosting - External Data Feeds and Interfaces

External Data Feeds

User services:

3rd party data feeds

3rd party data interfaces

Hosting - Output

User services:

Mainframe / Midrange server /

application bulk printing

2.9.6 Application Support & Maintenance

User services:	Support services:
Fix on fail for production application code Improvement to operation of production applications Supporting services: Requirements analysis Functional design Technical design 3 rd party liaison Coding S/W Vendor development lifecycle management Unit testing System testing Integration testing User acceptance testing Delivery to Operations Project management 3 rd line user support Operational acceptance Application service transition	Problem, incident, change & configuration management Impacting of Change SLA management Testing & validation Finance management Architecture input & compliance Vendor management Disaster Recovery Support

Table 2.7: IT Application Support and Maintenance Services

Figure 2.8 below shows the IT service tower structure where the outsourced service integration and management functions integrates with all other towers and Figure 2.9 shows the cross IT Service Tower Levels and Interactions.

The Outsourced Service Integration & Management functions integrates with all other towers and directly relates with a retained Service Integration & Management function

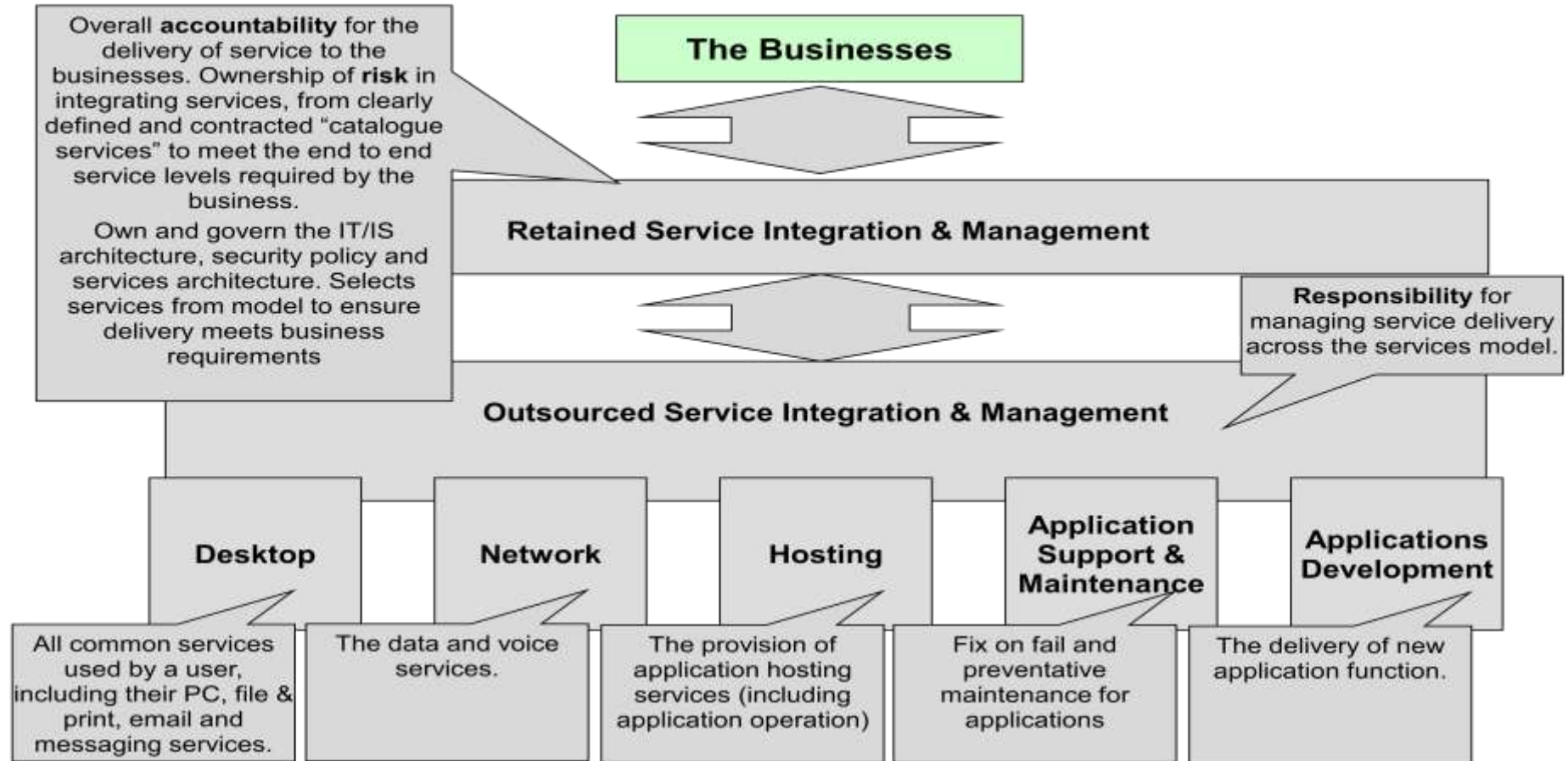


Figure 2.8: The IT Service Tower Structure

Source: Adapted from the Department for Work Pensions Standard Services Framework

World Class Operations

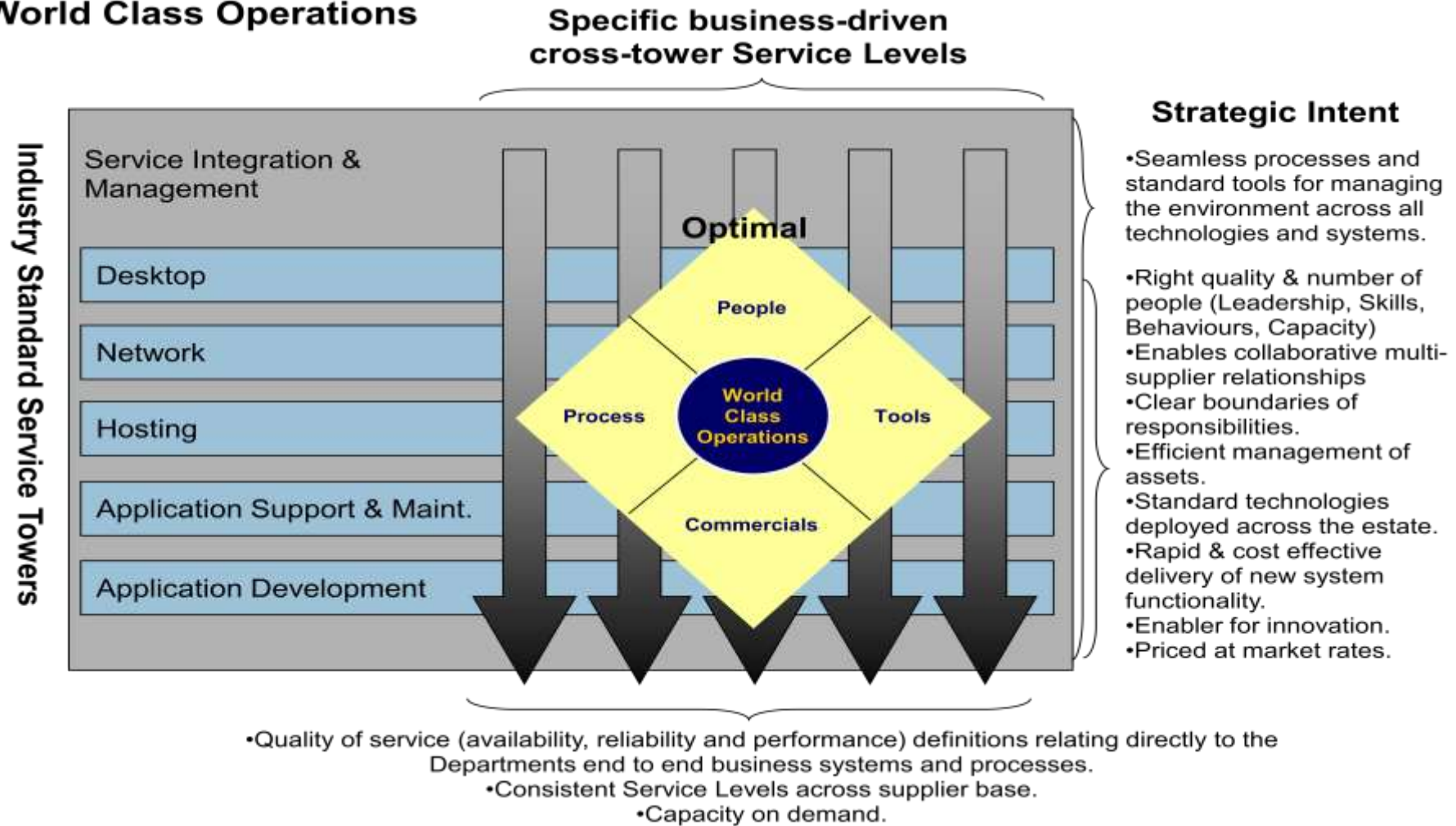


Figure 2.9: Cross IT Service Tower Levels and Interactions

Source: Adapted from the Department for Work Pensions Standard Services Framework

2.10 The case based approach as utilised in this research

This research study is predicated on the utilisation of the cases associated with three major Government Departments namely the Ministry of Justice (MOJ), Her Majesty's Revenue and Customs (HMRC) and the Department for Work and Pensions (DWP). In line with the findings in Voss, Tsikriktsis and Frohlich (2002: 195), it is based on the analysis of a limited number of cases in respect of the procurement approaches adopted by the three Government Departments in scope. It includes a review of each of their respective Procurement Strategies and their Commercial Management structures and practices in respect of the procurement approaches considered. It also covers survey responses designed to elicit the views of Government Officials and their supply chain partners who are part of the eco system for the delivery of procurement solutions to Government.

The cases drawn from each of the participating Government Departments provides both the documented and current practices within the respective domains, they are drawn from documents such as procurement and commercial management strategies, UK Government publications (National Audit Office, Parliamentary Accounts etc.) and interjected with survey responses from each of the Government Departments. Case based research as described in this research is in line with what is described in Voss, Tsikriktsis and Frohlich (2002: 197) as the method which uses case studies as its basis, with the phenomenon being studied in their natural setting and meaningful understanding gained by the researcher through observing actual practice. Each of these cases will be discussed and analysed in the following paragraphs.

2.11 Ministry of Justice (MoJ) IT Commercial Management & Procurement Strategy

The Ministry of Justice's Procurement Strategy defines the commercial architecture for the Ministry's arrangements for the delivery of its ICT supply contracts and services for the period from 2011 to 2016. The Strategy aims to lower the Ministry's ICT 'run & maintain services and costs during the SR10 period whilst increasing the use of Business Process

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Outsourcing. It defines the basis for securing ICT strategic partners and vendors that have the capability of delivering against the strategic goals that have been set.

The Procurement Strategy aims to achieve the convergence of the Ministry's business needs with improved accessibility, enhanced volume flexibility, access to private and third sector partners whilst accommodating technology integration of partners' platforms and systems. The Strategy also aims to deliver cashable savings with greater alignment with the cross government ICT Strategy, (Ministry of Justice, 2011).

2.11.1 Contracts and Spend Landscape

The Ministry of Justice has a heterogeneous set of agreements brought into one place by a succession of machinery of government changes. In total, there are circa 25 ICT services contracts due for renewal between 2011 and 2014. Some £350m per annum is spent across eight strategic contracts, of which just over £250m is for Run and Maintain (of a total Run & Maintain cost of £370m).

The Desktop Service provision is delivered through 3 separate contract arrangements with 3 different Service Providers including Quantum (Hewlett Packard – HP), OMNI (Steria) and DISC – Infrastructure (Atos). The fragmented IT Services supply arrangements within the MoJ indicates a degree of transactional procurement approach which is largely due to the legacy supply arrangements that existed prior to the consolidation and centralisation of IT service provisions across the entire Ministry. The derivable and sub-contractor costs could be described as commodity in nature with an element of lock in to historic price points.

Whilst industry pricing is falling year on year with full formal annual benchmarking being the MoJ's only contractually available course of action to correct pricing and deliver savings (Ministry of Justice, 2011). As indicated in the Ministry's IT Sourcing Strategy (Ministry of Justice, 2011:9) "this approach is no longer affordable for the MoJ and Government ICT Strategy and market conditions are changing to favour a service tower based, multi-vendor

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environment ... the contracts are in silos, orientated towards historic business unit structures". The Strategy also acknowledged that the legacy contracting strategy carries a number of inherent weaknesses; amongst those identified are ineffective supply chain management and the narrowness of market.

Ineffective supply chain management - sub-contractor costs are described as being commodity based. This type of arrangement is at best tactical, transactional in nature and provides little leverage to the Ministry on how it maximises the opportunities that the market place presents. Adopting a more relational approach especially one that is underpinned by volume aggregation and the consolidation of the fragmented requirements across the Ministry, with an IT standard services type framework and a commoditised ICT tower structure, the Ministry might be able to position itself to appropriate improved value from its supply chain.

Narrowness of market - Whilst HP, Steria and Atos currently delivers the majority of the MoJ's total Desktop requirement, it is however possible to consolidate these separate contracts into a single managed contract. The Ministry's IT Sourcing Strategy identified a market place for enabling such consolidation to be limited to the following suppliers: BT, Fujitsu, HP, IBM, Atos Origin, Cap Gemini and CSC. The presumption is that adopting this type of consolidation will allow the Ministry further value appropriation rights by maximising the inherent value that volume breaks and price-points presents. Additionally, such consolidation might mean even better access to the supply partner's significant and extended capacity for the achievement of even greater discounts.

For clarity the MoJ's existing ICT Services includes infrastructure provision (desktops, networks, telephony and application services) to prisons, headquarters sites and data centres as well as the service management and support elements required to maintain this infrastructure and the applications associated with it. The IT estate includes NOMS HQ and 131 Prisons, 12 of which are privately operated. There are circa 50 000 staff (circa 47 000

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users) working in shifts to manage a prison population of circa 85 000 offenders, (Ted.europa.eu, 2012).

In order for the MoJ to re-align its IT service provision from its current legacy arrangements, it is seeking to achieve a cost effective solution that will replace existing functionality and maintain business continuity for the Ministry and its associated bodies to ensure it meets its business aims and objectives, (Ted.europa.eu, 2012). To achieve this re-alignment, the Ministry in June 2011 issued a Procurement Information Notice (PIN) through the Open Journal of European (OJEU) by way of a contract notice for a competitive dialogue, (Ted.europa.eu, 2012). The short description of this notice reads as follows:

“MOJ intends to procure the services of an ICT provider including any proposed sub-contractors and/or partners to host, deliver, manage and support ICT services to NOMS and its associated bodies from July 2012. The contract will replace the current services pending transition of MoJ ICT Services to the Future ICT Sourcing (FITS) target operating model, (Ted.europa.eu, 2012).

The tender notice identified 9 distinct set of service requirements which includes:

- a. Contract Control and Management - a set of services, delivered collaboratively with the MoJ, to deliver control, reporting and management of the Services - strategic management tasks (Management Information, high level service reporting, strategy setting and alignment); enterprise architecture and commercial management;
- b. Generic Contract Services - a set of supplier delivered services of broad applicability into the Authority, and of value including project delivery;
- c. Service Management Services - the delivery of IT services managed in collaboration between the supplier and the Ministry's service management function;
- d. Information Assurance Services - a collection of Information Assurance related services

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- e. Cross Functional Core Services - including centrally managed and deployed security service (such as anti-virus servers);
- f. End-user Computing - the physical delivery and management of the Prison estate end user devices (desktops, laptops and other mobile devices, printers, scanners etc.) geographically distributed across sites throughout England and Wales. This includes installation, support, change and decommissioning tasks in relation to end-user computing infrastructure;
- g. Network Services - the delivery of resilient WAN and LAN services across the estate - including the current backup satellite communications – as well as the delivery of fixed line telephony services across those same sites;
- h. Hosting Services - the provision of physical hosting infrastructure (rack-space, environmental, physical security) and
- i. Application Development Services - support of current and proposed application development initiatives within existing NOMS related MoJ applications, as well as the potential development of new applications

Application Management Services - the ability to provide end to end application support from 1st line first time fix to 2nd and 3rd line technical support including required maintenance activities to a wide range of applications, both mission critical, standard and legacy, (Ted.europa.eu, 2012).

The successful conclusion of this tender exercise will move the MoJ from its current transactional and tactical IT procurement arrangement to a more relational type arrangement, it is envisaged that it will also change the way ICT services are delivered from the current end-to-end contracts by line of business to an MoJ wide "Service Tower" model with separate contracts for service integration, end-user computing, networks, hosting, and application maintenance and development, (Ted.europa.eu, 2012). The Strategy envisages that by delivering a more standardised and virtual desktop infrastructure across MoJ, the cost of desktop provision will be reduced.

This transformation is expected to be enabled through a move towards a tower based service delivery model, primarily to drive out cost through standardisation by combining new procurements with extensions and risk managed extend and blend options. It is also important that the proposed IT service provisions are delivered as a seamless end to end service. The transformation will be informed by developing and improving strategic relationships with appropriate suppliers through a commercial model which drives innovation and outcomes that are more closely linked to the delivery of business priorities. It is intended that the new arrangements will over time lead to service optimisations which should result in price and operational improvements, (Ted.europa.eu, 2012).

2.12 Her Majesty's Revenue and Customs (HMRC) IT Commercial Management & Procurement Strategy

The HMRC operating then as the Inland Revenue entered into the ASPIRE (Acquiring Strategic Partners for the Inland Revenue) contracted with Capgemini in 2004 for the provision of its IT services. The ASPIRE contract which was primarily known as the strategic outsourcing contract replaced a number of contracts including the IT Services Contract with EDS and the National Insurance Recording System (NIRS2) with Accenture. At the time the HMRC (Inland Revenue as it was then) felt that its IT services requirements will be best served through a strategic partnership arrangement with a single supplier who had over all accountability through a managed eco system, (Nao.org.uk, 2006).

The HMRC was formed from the former HM Customs and Excise and the Inland Revenue which had different IT strategies and different IT contracts. Whilst the former Inland Revenue had the ASPIRE contract which delivered its IT services including IT infrastructure and applications development, the former HM Customs and Excise had a revised contract (ISA) with Fujitsu which provided its IT infrastructure services. The Aspire contract which was deemed to be flexible enough to accommodate the combined IT service provision for the

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HMRC was subsequently extended in 2006 to include the services provided by Fujitsu as part of the IT service provision as well as other in-house IT services for the then HM Customs and Excise.

The ASPIRE contract is based on a contracting methodology that pays out on the basis of performance achieved (outputs) rather than resources used (inputs). It also has incentives for improved efficiency over the lifetime of the contract and greater flexibility for the Department to decide the most desirable point for re-competition. The contract contains a number of mechanisms for ensuring the continued delivery of value for money such as benchmarking, open-book accounting, contract flexibility, and appropriate change procedures to reduce the risk of contractors increasing profit margins, appropriate risk sharing, project trials, governance arrangements and open-book accounting, (Nao.org.uk, 2006).

The NAO report on the HMRC ASPIRE Contract (Nao.org.uk, 2006: 19) specifically identified the following as additional benefits within the contract:

- a. All IT projects developed under the ASPIRE contract will have individual business cases agreed between the Department and Capgemini that will identify the potential savings and benefits from implementation and milestones for successful project implementation. Capgemini are paid on the basis of implementing the projects to agreed milestones;
- b. Capgemini to provide technology-enabled change to the Department to enable the expected benefits arising from the O'Donnell and Gershon reviews and
- c. The Department is able to obtain an equal share of profits the suppliers make in excess of the contract target margin through a 'performance gain share' mechanism.

Prior to adopting the ASPIRE contracting methodology, the Department considered eight options within the context of meeting the future business needs and these options includes:

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1. Do-minimum (the extension of the of current EDS (HP) and NIRS2 contracts);
2. Strategic partnership with co-partnering;
3. Separate contracts split by service areas;
4. Separate contracts with different suppliers;
5. Strategic co-partnering and transfer of desktop assets;
6. Package by business stream;
7. Including business process outsourcing and
8. Extend to wider.

Several years on since the implementation of the ASPIRE contract, the HMRC has revised its IT sourcing strategy which should move the Department away from the current Strategic Outsourcing partnering arrangement with one prime supplier. The revised IT Sourcing Strategy is linked to the ASPIRE contract due to exclusivity with the aim of driving better value out of the existing arrangements with the intention to move ultimately to a Strategic Systems Integrator (SSI) and Tower structure in 2017. The revised arrangements provide an opportunity for engaging in multi supplier arrangements for the provision of HMRC's IT Service requirements.

The existing HMRC IT service provision which is delivered through an ecosystem primed through Cap Gemini has been in place since 2004 with a further revision in 2006 to accommodate the service provision for the combined Department, the intention is to review and re-negotiate these arrangements with Cap Gemini and create an SSI model and more market centric Towers with pricing structures that reflect demand. The review will also determine the appropriateness of the ecosystem contracts in the delivery of value for money and their strategic purpose.

The existing IT service provision within HMRC through the ecosystem contracts delivered by Cap Gemini is deemed to be delivering a good service with poor value for money and no

innovation, similarly the National Audit Office (NAO) report (Nao.org.uk, 2006: 3), indicated that the Department does not have an estimate of the final costs of ASPIRE because it is difficult to predict the level of IT demand, price changes and changes to the Department's activities over the lifetime of the contract. Consequently and in order to continue to meet the HMRC's business need, the introduction of the Strategic Service Integrator (SSI) and the IT Tower structure is intended to introduce competition, ensure value for money and introduce a multi supplier environment in order to facilitate innovation. Building on these principles, the HMRC It sourcing strategy is intended in the post 2017 period to retain the Systems Integrator and IT Tower Structure concept.

2.13 Department for Work and Pensions (DWP) IT Commercial Management & Procurement Strategy

The DWP has one of the largest public sector IT estates in Europe – it had over 149 major application systems that were operated by a number of service providers including HP, Atos Origin and BT through a number of existing hosting contracts and an integrated voice and data network. Following the combination of the former Department for Social Security with the Employment Service in 2001, the newly formed Department for Work and Pensions had a number of different and complicated IT systems and contracting arrangements. Major suppliers like EDS and BT delivered similar services to various parts of the Department under different systems and contracts. According to the NAO the asset ownership was mixed, (Nao.org.uk, 2008). For example, the majority of hardware and software in the Department of Social Security was purchased and owned by the Department whereas in the Employment Service the majority of data centre equipment was purchased and owned by EDS (Nao.org.uk, 2008). The report went on to indicate that the IT services were largely bespoke and not based on industry standard principles and that the cost of the service provision was largely unaffordable hence the need for change and modernisation, (Nao.org.uk, 2008).

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Consequently and in order to be able to meet its business imperatives and modernise its IT systems and infrastructure the DWP set about a major transformation that will form the basis for future trends in the delivery of IT services in both the public and private sectors. The existing contracts with EDS were realigned under the Transforming EDS Services (TREDSS) and those with BT were realigned under the Transforming BT Services (TBTS) contracting framework. As part of this transformation new arrangements were put in place including the Standard Services Business Allocation (SSBA) with EDS, and the Integrated Communications and Network Services (ICONS) contract with BT. These realigned arrangements provided clearly defined industry standard services within an IT tower structure. The tower structure was split as follows: desktops, hosting, application support and maintenance, applications development and Service Integration and Management (SIAM) – these were provided by EDS; and the network services – were provided by BT. The new arrangements ensured that that the services provided can be measured for quality, performance and price benchmarked, (Nao.org.uk, 2008).

The nature of these new arrangements moved the DWP away from a transactional type contracting arrangement to a much more collaborative and relational contracting approach. It also meant that significant cost reductions could be achieved with more favourable charges being negotiated across each of the IT Service Towers. It saw a fundamental shift in the way the Department engaged with the use of standard Commercial-Off-The-Shelf products and services (COTS) when compared to the purposely built to specification that the Department was previously used to. The number of local computer servers were reduced and replaced with fewer and more modern servers which delivered reductions in support and maintenance charges.

The telephone and network services were also modernised with a single, modern converged telephony and data network that has enabled new contact centre technology, offering major improvements in the handling of the growth in customer call volumes, (Nao.org.uk, 2008).

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One of the major benefits of this transformed relationship and IT environment was the way the IT Desktop was now procured, whilst the Department previously owned and maintained its desktop, the new relational contracting arrangement meant that this can now be procured as a service thus ensuring that the Department only paid for what it uses i.e. matching supply to demand and reducing the size of the IT desktop requirement significantly. These new and transformed arrangements also meant that the technologies were regularly refreshed without the need for additional funding from the Department.

The DWP has gone through an IT transformation programme from an IT operation which was dominated by ‘first generation’ PFI agreements with HP and BT to a Standard Services Framework with a mix of legacy systems scheduled to be transformed over time. The Transformed IT environment is delivering higher and more resilient levels of service and provides market competitive pricing. This strategy – which involved the implementation of standard operational services under two major transformation programmes: Transforming HP Services (TREDSS) and Transforming BT Services (TR BTS) has led to significant on-going supplier cost reductions, (Department for Work and Pensions, 2009).

The DWP’s ICT services architecture defines services in industry standard components against five IT Standard Services Towers. The ICT services architecture has been specifically designed against the main categories of ICT spend so as to allow the Department maximum flexibility in benchmarking and competing new services or re-competing of services upon expiry.

The DWP IT Sourcing Strategy’s overarching principles is premised on the need to continue to transform supply and provide a model that delivers world-class services by enhancing the Department’s ability to access the IT marketplace and by developing supplier performance and value for money through revitalised supplier relationships and the appropriate use of competition. The DWP IT Sourcing Strategy (Department for Work and Pensions, 2009) identifies the following as specific objectives:

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- Maintain existing ICT operations to an industry standard services model;
- Deliver industry standard systems and services using pricing models, under which the Department pays for the IT service used;
- Use COTS packages, focused on re-use of existing software and licenses;
- Develop supplier performance, against both existing contracts and future commercial arrangements by appropriate commercial measures;
- Construct a more competitive environment, whilst encouraging collaboration between suppliers in support of objectives;
- Manage demand and the buying of standard services, by challenging internal demand whilst ensuring compliance to the standard services model and
- Utilise a contractual framework for sourcing, which is simpler, faster and cheaper to use.

The DWP has a simple contractual architecture for sourcing which increases opportunity for mini-competition thereby optimising operational efficiencies and value for money benefits. It comprises of four primary contracting vehicles including HPES (Standard Services Business Allocation agreement or SSBA) BT (ICONS), Accenture, IBM, Cap Gemini (Application Deployment or ADep) and the enGage (Government Gateway Contract) with Atos Origin. The DWP Desktop Services are provided by HPES as a managed service under the Desktop 21 contracting framework. The contracts, which contain pricing catalogues with unit rates, are demand driven and contain benchmarking provisions that measure the cost of services against the wider market. Improved delivery and value for money is expected to be achieved by promoting a greater degree of direct and indirect competition between vendors for new IS/IT systems and services. This in line with the DWP IT Sourcing Strategy (Department for Work and Pensions, 2009) is intended to deliver the following:

- Improved business delivery through enhanced management and control of key supplier performance functions;

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- Earlier project delivery;
- Improved quality and VFM of operational services;
- Improved effectiveness of IT spend by focussing on appropriate performance drivers;
- Improved value from current contracts by addressing contractual limitations;
- Use of multiple suppliers as appropriate, thus reducing single supplier dependency and exploiting “best in class” provision;
- Improved allocation of risk;
- Reduction of monopolistic and opportunist behaviour through partnerships and appropriate use of competitive pressure.

2.14 Comparative Analysis – MoJ, HMRC and DWP

The DWP has since 2005 realigned its contracting arrangements and adopted a more relational procurement approach to the way it procures its IT services. It achieved this by structuring its IT service requirements into specific tower structures with utility based pricing which can be benchmarked and market tested. According to an NAO report (Nao.org.uk, 2008) on the realigned contracts, the Department has in adopting these new contracting principles delivered the following:

- 1) The total number of staff working on IT within the Department overall has reduced;
- 2) The Department has set out to achieve industry leading standards for the accreditation of its IT function and has achieved Level two against the five levels International Capability Maturity Model Integration (CMMi). The Department has also made further improvements in the overall management of IT outsourcing by adopting Information Technology Infrastructure Library (ITIL);
- 3) During the first four years of the contract the Department’s expenditure on IT has decreased from £1,071 million in 2004–05 to £991 million in 2007–08;

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- 4) Overall combined spend with EDS and BT appears to be on track to reduce by 40 per cent from the overall spend of £840 million in 2005-06 to around £508 million by 2010-11;
- 5) The realigned contracts provided staff with almost 140,000 new desktop computers, around 7,000 encrypted laptop computers, and in excess of 108,000 new telephones, which make use of the new converged voice and data network. Under the contracts the Department has also rationalised its data centres. A new contact centre service now enables existing Jobcentre Plus contact centres to be joined together as a virtual service. This is intended to provide a better, more flexible and more reliable service for customers and enable better management of over 18 million calls each year at any of the Jobcentre Plus contact centres and
- 6) Over time there has been a steady improvement in the availability of the most important departmental IT systems. In April 2008, 23 of these systems were available 100 per cent of the time and the others for more than 99.7 per cent of the time. In the month of August 2008, all 25 of the Department's critical systems were available 100 per cent of the time.

Given these endorsements by the National Audit Office, the adoption of this type of relational contracting approach by the DWP has created and delivered added value and continues to do so.

The HMRC's transactional procurement approach which it adopted through its strategic outsourcing contract under ASPIRE with Capgemini has also been reviewed by the National Audit Office (Nao.org.uk, 2006: 8-9) who identified the following:

- The new supplier has provided IT services from day one of the contract, meeting or exceeding target service levels.
- Since transition there have been some delays on projects, attributable mainly to changes in the Department's requirements.

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- There have also been significant cost increases due to the Department's increased demand for IT services and projects which was higher than it anticipated at the time the procurement was run.
- The actual profits made by the supplier have also been higher than expected when the Department awarded the contract because of the higher volume of work and large number of IT projects in development but the overall target profit margin has not been exceeded.
- The contract prices include profit margins in line with industry margins, with lower margins for lower value-added service lines and higher margins in the riskier project area.
- The contract includes a provision for prices to increase annually with the Retail Price Index and annual reductions for efficiency improvements. Prices can be varied for events outside the contractor's control and there are penalties for underperformance.
- Prices can and have been renegotiated up and down where volumes change. If the overall target profit margin of 12.3 per cent is exceeded, the Department can obtain an equal share of the extra profits.
- The overall value for money of this contract, and the premium the Department paid to secure it, will ultimately depend on how well it meets the Department's IT needs over the lifetime of the contract, including how well it deals with the degree of change in taxes and other services and the Department's systems and organisation. It will also depend on how well the Department controls costs and manages performance to ensure the benefits of the contract are achieved.

HMRC's intention as expressed in its IT Sourcing Strategy for 2017 to adopt the Strategic Service Integrator (SSI) and Tower Structure model for its IT service provision will move it from a transactional contracting methodology to a more relational type approach similar to what was adopted by the DWP. Similarly the MOJ is seeking in its Future IT Service (FITS)

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procurement exercise to move away from its transactional type approach to more relational approach by adopting an IT tower based structure for its IT service provisions.

From the foregoing analysis it can be deduced that the three Government Departments considered for this research have either already organised themselves (DWP) on the relational type contracting methodology based on output pricing or are developing strategies (HMRC and MOJ) to move to a similar approach in the future. This will determine their ability to manage highly complex public sector procurement requirements and by implication the supporting supply chains if additional value is to be created and those already created are to be protected from being eroded. This directly resolves this study's research issue one.

The shift from transactional based procurement method to relational or a combination of transactional and relational procurement approach where collaboration, mutual trust, long term relationships, interdependence, joint problem solving highly prescriptive and sophisticatedly written and binding contracts between buyers and suppliers may result in the trade-off of power between buyer and supplier. However, this risk is mitigated as the risk of the supply and provision of services to Government is never truly transferred and the potential power imbalance between the two and any associated risks becomes shared. Mechanisms such as open book policies, agreed and allowable margins, mutual trust and performance incentives are useful commercial instruments that can be employed as effective risk control mechanisms.

2.15 The Procurement Process

This research study considers the front end of the procurement cycle, commencing from the demand identification, specification and the procurement process leading up to contract award, it specifically captures the role of the procurement function in the public sector product or service acquisition process.

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In Parker and Hartley (2003: 98) it is assumed that in principle public/private sector collaborations will be predicated on the delivery of general objectives or specific outputs or outcomes which ultimately places the design and management responsibility on the private sector for the delivery of these outputs or outcomes. These types of arrangements also requires public sector procurement groups to be able to provide very clear and concise specifications, output/outcome based business or service requirements, clear, enforceable and incentivised contracts and a clearly articulated, defined and transparent procurement/bidding process.

2.16 Value

There is very little consensus of what value creation is or how it can be achieved (Lepak et al., 2007; Barney, 2001; Bowman and Ambrosini, 2000, 2007a; Makadok and Coff, 2002; Priem, 2007; Priem and Butler, 2001a, b) and the term value can mean different things to different people (Bowman and Ambrosini, 2010: 479). In order to overcome these definitional problems of what value is, Bowman and Ambrosini (2000) offered the concept of use value and exchange value. Use value being the specific qualities of the product perceived by customers in relation to their needs and exchange value refers to price meaning the monetary amount realised at a single point in time when the exchange of the good takes place (Bowman and Ambrosini, 2000: 3). Perceived use value can be translated into monetary terms and can be seen as the price the customer is prepared to pay for the product within a single source of supply (Collis, 1994)

Bowman and Ambrosini (2007b) identified three types of activities involved in the value creation process and these are the creation of products/services, realising revenues from customers and minimising cost flows to suppliers. (Bowman and Ambrosini, 2007b: 360). This study in the main focuses on the third of these processes which is minimising cost flows to suppliers. Similarly, it predicates its perception of value around the type 3 of the main types of firm activity in value creation (the minimisation of cost flows to suppliers) identified in

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Bowman and Ambrosini (2007b: 361-362) as those activities involved in procuring inputs into the firm. These are those activities that are aimed at reducing the amount of money paid for the products or services supplied with the aim of obtaining value for money, not seeking to procure the cheapest, delivers high quality and achieved through 'artful procurement'.

This research study primarily considers Bowman and Ambrosini (2010) definition of what value means to customers and to the firm. For customers they contend that value can mean value for money which they identified as the subjective judgement of the use value compared with the price charged for it (Bowman and Ambrosini, 2010: 483). Whilst this ascribed meaning of value for money might be appropriate in a number of circumstances, the determination of what value for money is within the UK public sector is primarily about the efficiency or savings generated comparative to a pre-agreed baseline. On what value mean to the organisation as a customer, it will seek to optimise the use value of inputs acquired from suppliers for the minimum economic value paid for them (Bowman and Ambrosini, 2010: 485). This value capture is achieved through competitive procurements, negotiated outcomes and optimising the use of procured inputs. Added value and cost advantage can equally be generated through what Bowman and Ambrosini (2010) described as artful buying which in this research study is a consequence of improved capacity and capability of Government Officials entrusted with the buying or procurement function.

Value can therefore be seen as something of importance or usefulness that has some monetary worth or other intrinsic benefits attached to it. In pursuing this objective, government and public sector bodies seeks to ensure fairness, equality of treatment, public accountability, efficiency, transparency, competitiveness and the delivery of value for money from the disbursement of public funds. It is important therefore to couch the definition of value in terms of the benefits that are derivable from the relationships (supply chain or otherwise) between the contracting parties less the total costs of engaging in such relationships (Purchase et al., 2009: 4).

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Woodall (2003) identified value as being the trade-off between benefits obtained and sacrifices given (or costs paid) by the customer. The objective of the relationship in value terms is therefore to achieve the desired objectives or goals i.e. the delivery of the product or service on time, at the lowest possible cost and without lowering the quality of the deliverable. Value in this context is intrinsically linked to the total cost of ownership (Wouters et al., 2005; Lindgreen and Wynstra, 2005) and not just the price function. It also includes the sacrifices expended for the acquisition and in the creation of the value including the price; time spent engaging in the procurement process, supplier relationship management, resources deployed on product or service integration and utilisation (Purchase et al., 2009: 10).

To ensure that value is indeed created from Government and public sector procurement activities, significant levels of expenditure are subject to EU procurement regulations. They are also subject to additional regulatory requirements from Government, public accounts transparency, scrutiny and ethical judgements from political committees and public interest groups (Purchase et al., 2009: 5).

Value can also be defined or calculated using conventional accounting methodologies to measure the monetary benefits that are derivable from engaging in procurement relationships, these methods allows for the quantification and comparison of costs and benefits that are associated with any procurement or contractual relationships. Often referred to as objective methods, they provide a quantitative and comparative basis for identifying the value created from identifiable transactions (Farbey et al. (1993), Farbey and Finkelstein (2000) and Ronchi et al. (2010: 132). These methods are represented in Table 2.8 below.

There are other value measurement methodologies which provide qualitative, exploratory and subjective ways of defining value. These subjective methods considers the opportunities and threats associated with the procurement or contract delivery process that could lead to

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or hinder the determination of value through a process of exploration and mutual engagement (Farbey et al. (1993), Farbey and Finkelstein (2000) and Ronchi et al. (2010: 132). These methods are represented in Tables 2.8 and 2.9 respectively.

A combination of these approaches will be adopted in this research in order to identify the procurement approach that will most likely deliver more value and the associated critical success factors.

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Method	Detail	Process management	Data	Features
Cost/ revenue analysis	Very detailed	Accounting and costing staff	Cost accounting and work- study method	Focus on cost savings and cost displacement
Return on investment (ROI)	High	Calculation by professionals; tangible costs and benefits aggregated as cash flows	Tangible; direct; objective	Ex ante and ex post ; future uncertainty is considered; middle to high cost
Cost-benefit analysis	High	Bottom up; carried out by experts; money values for decision makers by incorporating surrogate measures	Cost and benefit elements money expressed in a standard value form; pseudo-objective	Ex ante or ex post ; cost effective solutions; “external” and “soft” costs and benefits; numbers more important
Return on management (ROM)	Low	Calculation by professionals; manipulates accounting figures to produce a residue—value added by management	Accounting totals (e.g. total revenue, total labour cost)	Ex post; no cause and effect relations can be postulated; utilisation of a formula; cheap
Boundary values and spending ratios	Low; aggregate	Top-down; senior stakeholders involved; calculation by professionals	Ratios of aggregated numbers (e.g. IT expense per employee	Ex ante or ex post ; supporting benchmarking analysis; cheap
IE, information economics	Usually very detailed	Many stakeholders involved; detailed analysis required	Ranking and rating of objectives, both tangible and intangible	All options are comprehensively dealt with; rather complex

Table 2.8: Quantitative/comparative method

Source: Adapted from Farbey et al. (1993), Farbey and Finkelstein (2000) and Ronchi et al. (2010).

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Method	Detail	Process management	Data	Features
MOMC, multi-objective, multi-criteria	Any level	Top-down; consensus seeking; all stakeholders involved; best choice is computed	Priorities are stated by stakeholders; subjective evaluations of intangibles	Ex ante; good for extracting software requirements; process is more important than numbers; selection of (a) preferred set of design goals, (b) best design alternative; high cost
Value analysis	Any level; generally detailed	Iterative; senior to middle management involved; variables identified with Delphi method	Indirect; subjective evaluations of intangibles; utility scores	Ex ante; iterative; incremental; focus on added value than on saved cost; process is more important than numbers; high cost
Critical success factors	Short list of factors	Senior management define CSFs	Interview or self-expression; Quick but consuming senior management time	Ex ante; highly selective
Experimental methods	From detailed to abstract	Management scientists working with stakeholders	Exploratory; uncertainty reduction	Ex ante

Table 2.9: Qualitative/exploratory methods

Source: Adapted from Farbey et al. (1993), Farbey and Finkelstein (2000) and Ronchi et al. (2010)

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Value generally focuses on the overall worth of the received benefits for the price paid for a particular good or service; this includes direct – monetary and indirect non-monetary functions. They can be direct and therefore easily measured or indirect which are virtually impossible to measure. (Simpson, Siguaw and Baker, 2001:121). Value can also be perceived as satisfaction within an exchange relationship.

There are direct and indirect values that can be created within an exchange relationship. Direct value can be expressed as the realisable benefits – monetary or otherwise, the delivery of core functions over and above those contracted for (key performance objectives), decreased costs for the provision of the contracted service or good etc. Indirect value on the other hand can be expressed as the level of satisfaction, communication, shared ethical values, commitment, frequency of managerial contacts, professionalism (including expertise, skills, competency and attitude) and trust in the exchange relationship (Simpson, Siguaw and Baker, 2001:121-5). Such relational variables in an exchange relationship can create or add value to the relationship partners through reductions in transactional costs such as negotiating, writing/processing orders/contracts. Simpson, Siguaw and Baker (2001: 124-5) noted that relational norms such as commitment, trust, cooperative norms, and shared values serve to reduce negotiation time; keeps work moving forward and minimises the need for monitoring and safeguarding procedures thereby leading to reductions in costs and increased productivity.

Standard product/service attributes such as quality, reliability, price/cost, warranties/guarantees, on time delivery, product/service support, innovation and competitiveness are all important components of the total product or service offering that constitute economic value. These attributes when enhanced further through partnership/relational mechanisms can improve competitive advantage, reduce direct and indirect costs (both buyer and seller) and thus create added value in the exchange relationship (Simpson, Siguaw and Baker, 2001:125).

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A total managed service which is premised on relational principles encompasses the provision of numerous services. It enables the right products/service to arrive with the right customers at the right place and at the right time. This can often be the source of added value in an exchange relationship. In Simpson, Siguaw and Baker (2001: 127), it is stated that suppliers can provide numerous services that have the potential to create value for their resellers and that these types of services are important as more companies are less interested in a mere product or service and more interested in the total solution. Such managed services improve financial performance, reduce costs, delivers added benefits and saves money.

Value in this research will therefore be considered to include all of those variables that enable the provision of goods and services for the fulfilment of an organisation's requirements and also deliver both direct and indirect benefits to the partners in the exchange relationship. This could be direct cost benefit, savings, enhanced service delivery, total support services, trust, communication, relationship management etc. A number of these attributes will be tested as variables in the deployed questionnaire for this research study to test the extent to which either relational or transactional or a combination of both mechanisms delivers the most optimum value within the UK public sector procurement.

Figure 2.10 below provides a framework for value creation by exploring the market – oriented behaviours of suppliers, the value – oriented supplier activities and behaviours and reseller costs of relationships which is conceptualised as leading to increased reseller financial performance, reseller perceived value relationship and the outcome of perceived value (Simpson, Siguaw and Baker, 2001:123). The framework identifies a number of variables which will help inform the final selection of variables for both the relational and relational value components of this study. Some of the linked relational variables are Relational Norm variables (information and cooperation), Relational Trust variables

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(committed behaviours, trusting behaviours, ethical values and cooperative norms) and relational performance variables (opportunities and relationship specific investments). Similarly the framework also informs the relational value variables such as competitive pricing (value for money), decreased cost of goods and services (savings), decreased opportunity costs (switching), reseller perceived value of the relationship (service), increased reseller commitment and cooperation (support) and increased reseller satisfaction (result). These variables will be augmented and refined throughout this research study.

Framework of value creation

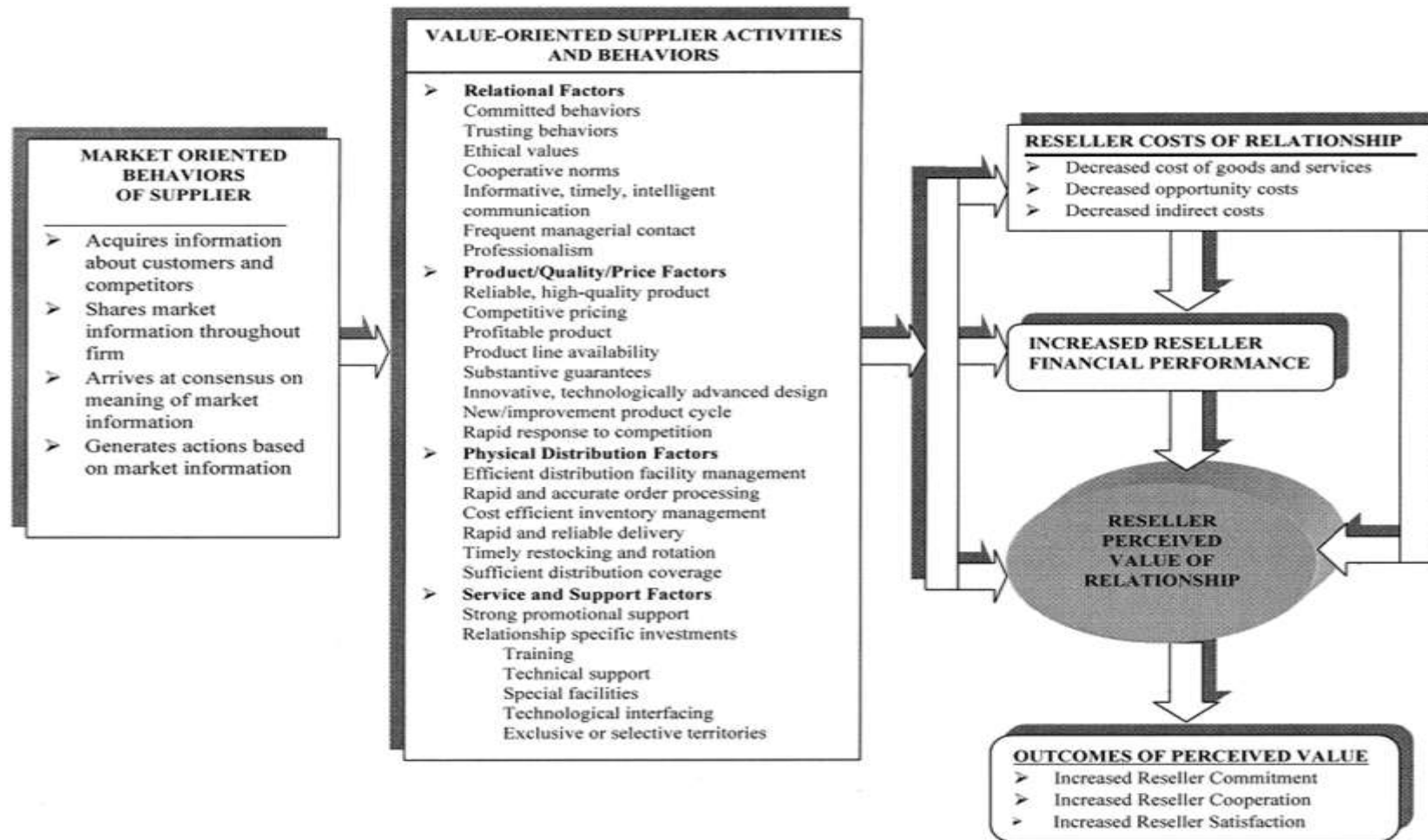


Figure 2.10: Framework of value creation.
Source: Adapted from Simpson, Siguaw and Baker, 2001: 123.

2.17 Critical Success Factors

An important aspect of this research study is the determination of those critical success factors for implementing the best-performing procurement approach in the UK public procurement. Critical success factors are seen as those areas where results if satisfactory, will ensure the successful competitive performance of organisations. They are used by organisations to understand the key areas to focus on including those factors that helps define and ensure success (Kurti, Barolli and Sevrani 2013:83). The concept of critical success factors is used interchangeably with such concepts as key success factors (Freund, 1988), success factors (Daniel, 1961) and key factors. Critical success factors helps with the simplification (Simon, 1957), reduction (Hodge & Reid, 1971) and strategic planning (Bullen and Rockart 1981) of the criteria and variables considered and balanced (Belton & Stewart, 2001) for strategic decision making. The concept which is used in a number of industries (Bergeron & Begin, 1989) was further developed by Rockart (1979) who saw its application in a limited number of areas resulting if satisfactory in organisations' successful performance. They are seen as those limited number of factors that helps define and ensure the success of organisations when successfully achieved, they also help organisations to understand where key resources and time can be invested for the utmost gain (Kurti, Barolli and Sevrani 2013:83).

Critical success factors provide a structure for organising the innumerable factors for achieving success in organisations. Studies such as Chan et al. (2006), Luftman & Kempaiah (2007), Chan & Reich (2007) and Schlosser et al. (2012) provided varying models for structuring critical success factors. Schlosser et al. (2012) identified both horizontal organisational layers and vertical dimensions of critical success factors. They segmented the horizontal organisational layers into three core segments including strategic, cross-domain and operational, they also split the vertical dimensions into three which are human, social, and intellectual layers.

Daniel (1961) suggested that there are usually three to six success factors which are subject to change and not always predictable but determines organisations success or failure.

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Rockart (1979) identified environmental factors (including macro economy, politics, regulations etc.), temporal factors (special abnormal situation, development stages etc.), geographic location, and strategic situation as critical success factors that are not specific to particular industries (Rockart, 1979: 86). Schultz, Slevin and Pinto (1987) identified four critical factors as factors related to the project, those related to the project manager and the team members, those related to the organization, and those related to the external environment (Schultz, Slevin and Pinto, 1987: 143). They opined that factors in one group can influence those in other groups and that a combination of several factors from various groups might lead to project failure. They suggest that grouping critical factors helps the understanding of intra-relationships between the factors in different groups (Schultz, Slevin and Pinto, 1987: 143).

This view is similar to those expressed in Belassi and Tukel (1996) who suggests that grouping factors together according to some criteria helps the with the analysis of the interaction between them and the possible consequences. They added that it is important to identify the group a factor belongs to (instead of identifying individual factors) before determining the combined effects (Belassi and Tukel, 1996: 142).

In summing up the characteristics of critical success factors Freund (1988) identified its importance in achieving corporate goals and objectives. They must be measurable and controllable, relatively few as not everything can be critical (about 5-10), expressed as things that must be done, applicable to all organisations with similar objectives and strategies and hierarchical in nature (Freund, 1988).

This research study will adopts a combination of the methodologies set out above from the review of the literature by clustering the identified success factors for implementing the best-performing procurement approach in the UK public procurement into 5 core groups of critical success factors. These groups of critical success factors are human, process, institutional,

strategic, cross-domain and operational. These groupings are appropriate for this research primarily because they more accurately provide an explanatory framework for clustering similar themes together within the construct.

2.18 Summary of the key elements emerging from the review of the literature

Some of the key elements emerging from the review of the literature that will help inform various aspects of this research study in subsequent chapters are as follows. Erridge and Nondi (1994) identified a number of characteristics relating to transactional (competition), relational (partnership) and mixed (mixed) procurement approaches. Lian and Laing (2004) identified transactional purchasing as a form of exchange which is viewed as discrete arms-length, one-off transactions, the type of open market competition embraced by the European Union (EU) and United Kingdom (UK) governments. This study builds on a number of these variables including the frequency of supplier selection, length of contract, number of suppliers, contractual relations, communications, negotiations and joint activities in developing the variables utilised.

Other studies including Spekman (1988) identified collaborative/strategic partnerships as fostering cooperation in maintaining longer term relationships, Wicks et al. (1999), Wuyts and Geyskens (2005), Liu et al. (2009), Granovetter (1985) and Jones et al. (1997) identified trust and relational norms. Lindgreen et al. (2009) saw the establishment and development of supplier relationships based on cooperation and partnership and the simultaneous and complementary need for both value creation and cost cutting changing the role of procurement. The study suggests that instead of its traditional ancillary role, purchasing today seeks to play a strategic role.

This study draws on the on the distinctions made between transactional and relational procurement methods from the literature including Giunipero (1986) - traditional and world-class purchasing, Stuart (1993) - traditional and supplier partnership approaches, Macbeth

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(1994) and Furlong et al. (1994) - adversarial and partnership models. Other relevant distinctions were Mesquita and Brush (2008), Reuer and Arino (2007) and Ryall and Sampson (2009) - contractual governance, Jayaraman et al. (2012), Li et al. (2010), Poppo et al. (2008), Zhou and Xu (2012), Liu et al. (2009), Poppo and Zenger (2002), Dyer and Singh (1998) and Malhotra and Murnighan (2002) on relational governance.

All of these attributes and variables which describes the transactional, relational and mixed components of the prevailing procurement approaches were considered and factored into the development of the conceptual and theoretical models of this study, they were also utilised in framing a number of the survey questions.

The UK Government Procurement in the reviewed literature was mainly described as transactional in the approach adopted. Studies including Schiele and McCue (2006), Plastrik (1997) and Grimm (1999) summed it up as a clerical and process-oriented. Matthews (2005) saw little evidence that public procurement has penetrated the theoretical boundaries of public management or strategic management despite the profession's efforts over more than a decade to develop its profile. Similarly, Lawther and Martin (2005) opined that Government Procurement should abandon its traditional ways of doing business and to move towards more relationship contracting with partnerships becoming more important in dealing with more complexity and risk within the sector. The study encouraged less adherence to specific contract language and a greater acceptance of the need for communication, dialogue, negotiations and compromise over the life of the contract. All of these attributes were considered in shaping the conceptual and theoretical models respectively; they also contributed to the development of the research questionnaire.

Walker et al. (2006) identified capability and capacity (expertise), aggregation and pooling (leveraging Government's scope and scale) as factors that is required for Government procurement organisations to focus on the delivery of their core activities. This informs this

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studies consideration of those critical success factors that are required for the successful implementation of the best performing procurement approach.

This study builds on Bowman and Ambrosini (2007b) by conceptualising value as those processes which minimises cost flows to suppliers. it also considers their views on procuring inputs for Government Departments i.e. those activities that are aimed at reducing the amount of money paid for the products or services supplied with the aim of obtaining value for money, not seeking to procure the cheapest, delivers high quality and achieved through what they described as 'artful procurement'. This study builds on the framework of value creation developed in Simpson, Siguaw and Baker (2001) by considering a number of variables contained within the framework in the determination of the final selection of variables for the relational and relational value components of this study.

The literature review covered aspects of the critical success factor which provides a structure for organising the innumerable factors for achieving success in organisations. This study builds on the findings in studies such as Chan, et al. (2006), Luftman & Kempaiah (2007), Chan & Reich (2007) and Schlosser et al. (2012) which provided various models for structuring critical success factors, by clustering the identified critical success into six core groups which are human, process, Institutional, strategic, cross-domain and operational.

The review of the different cases, strategy documents and other publications about the three Government Departments considered for this research indicated that they are either already organised (DWP) on the relational type contracting methodology based on output pricing or are developing strategies (HMRC and MOJ) to move to a similar approach in the future. This review helped frame the conceptual model and theoretical models respectively.

2.19 Knowledge Gap

Whilst these concepts (transactional and relational procurement) remains pervasive in supply chain literature, the way in which public sector organisations are structured,

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organised and resourced to administer the strategic sourcing and commercial management perspectives remain largely un-investigated especially in respect of creating added value and protecting the value already created. Similarly, the adopted procurement approaches and the way they are leveraged may not allow for the development of sufficient and or appropriate capabilities and competences that are required to manage seemingly complex public sector supply chain relationships.

This research study therefore aims to explore these types of procurement approaches in order to ascertain appropriate fit, structures and the extent to which they contribute to the creation of added value and the protection of the value already created. This study also considers how best to leverage the most optimum approach and identifies a number of other and critical success factors for implementing the most appropriate procurement method.

None of the literature reviewed directly links or connects the complexity of the UK Public Sector Procurement to the adoption of the most appropriate procurement method to enable the creation and retention of value. This research study therefore seeks to achieve this objective and by implication bridge this gap. The reviewed literature builds on and extends the existing body of knowledge to include their relevance to the UK public sector. Relevant articles in related fields will be reviewed and analysed and appropriate linkages drawn to present a transparent view of prevailing thinking.

The study will also provide recommendations on the importance of understanding the increasing complexities that exists in the UK public sector procurement and the need to develop new and appropriate approaches to meet current public sector efficiency targets and challenges.

2.20 Research Issues

From the review of existing literature in public and private sector procurement, this study demonstrates that some gaps exist in the literature especially in respect of public sector procurement. That the way in which public sector procurement groups are currently structured and organised may not lend itself to the development of sufficient and or appropriate capabilities and competences that are required to manage the seemingly complex public sector supply chain relationships. Similarly, and since the advent of the United Kingdom Public Contracts Regulations 2006 which saw the introduction of the competitive dialogue procedure, public sector procurement groups have variedly pursued different types of relational procurement approaches. This research study will therefore attempt to understand these types of procurement approaches in order to develop appropriate recommendations on how some of the considered approaches creates added value whilst also protecting the erosion of the value already created.

The research issue therefore can be classified as follows:

- 1) The structure and organisation of public sector procurement groups will determine their ability to manage highly complex public sector procurement requirements and by implication the supporting supply chains if additional value is to be created and those already created are to be protected from being eroded.
- 2) The type of procurement approaches (transactional, relational or a combination of both approaches) adopted by public sector procurement groups is likely to determine their ability to deliver greater value and also protect the erosion of already created value.

2.21 Research Objectives

The objectives of this research which will be both practice and academic focussed build on some of the issues identified above and in the literature review and also from some of the increasing cost and efficiency challenges presented by the UK HM Treasury to public sector procurement groups are as follows:

- 1) To investigate and analyse some of the different procurement approaches (transactional, relational or mixed) that are adopted within the UK public sector procurement groups to determine the extent to which these approaches create added value and protect the erosion of the value already created.
- 2) To establish how the evaluated approaches should be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements.
- 3) To investigate the critical success factors for implementing the best performing procurement approach in the UK public procurement.

2.22 Scope of the Study

The Scope of this research will be limited to 3 major Government Departments from where appropriate extrapolations will be made. These Departments are as follows:

- a. The Department for Work and Pensions (DWP),
- b. The Ministry of Justice (MOJ) and
- c. Her Majesty's Revenue and Customs (HMRC).

It focuses primarily on the IT procurement category by examining both current procurement arrangements and the next generation and future replacements such as Standard Services and Outcome based IT service provisions. It explores the transactional and relational procurement methods as applied within the UK public sector. Published works by way of journal articles on the methods described above within the UK public sector is very rare and difficult to come by. This is attributable largely to the lack of access to public sector

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procurement and supply chain activities which remains highly guarded and subject to confidentiality and non-disclosure agreements. Similarly suppliers to this sector are also reluctant to provide supply chain relationship and value creation data for confidentiality and non-disclosure reasons.

This research study will not extend to the cooperative relationships between buying organisations which is defined as the cooperation between two or more organisations in a purchasing group in one or more steps of the purchasing process by sharing and/or bundling their purchasing volumes, information, and/or resources in order to achieve mutually compatible goals that could not be achieved individually. (Schotanus and Telgen, 2007: 53). In this form of relational procurement method, collaborating organisations “pool or share their purchasing volumes information, and/or resources in purchasing groups in which the members share the workload between themselves. By doing so, these organisations, combined in a group, aim to obtain, among other things, lower purchase prices and reduced duplications of efforts and activities due to economies of scale, process, and information (Schotanus et al., 2010: 51). This type of cooperative relationship is excluded from this research study because of the extensive nature of the area which spans local authorities, the Police Service, Fire Authorities, the Ambulance Service and National Health Service (NHS) across the UK.

2.23 Conceptual Model

The conceptual model identified below in Figure 1.1 provides an illustration of the core and sub variables utilised in this research study. The model seeks to illustrate the components of each of the core themes associated with the three hypotheses designed to test the value creation and retention attributes of the classified procurement methods. The model was developed from a number of the components and key recurring themes from the reviewed literature and embodied in the questionnaire survey for both Government Officials and their IT Desktop suppliers. The components and variables selected provide a justifiable link as

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useful attributes for defining each of the themes which the identified hypotheses are designed to test. They provide useful meanings and descriptors for each of the respective core variables which are Transactional, Relational and Mixed procurement methods. The conceptual model has evolved over time and undergone several refinements based on evidence from the reviewed literature and validated with public sector procurement practitioners.

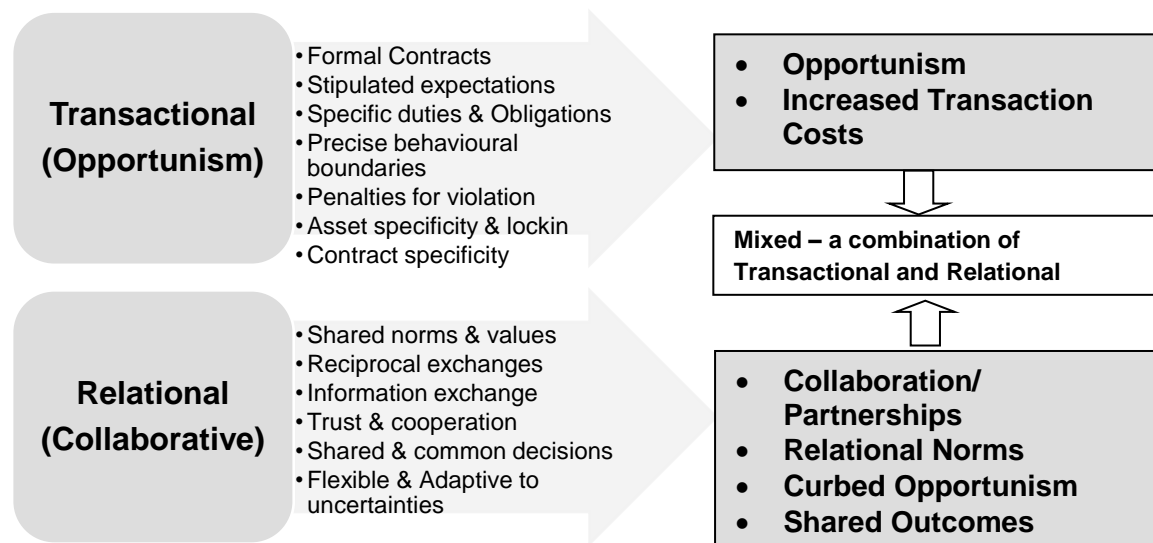


Figure 2.11: Conceptual Model

Opportunism	<ul style="list-style-type: none"> • Opportunistic and self interest seeking with guile • Value appropriation by supply chain partners in line with their relative power
Increased Transaction Costs	<ul style="list-style-type: none"> • Additional costs incurred as a result of increased number of transactions (such as higher purchasing administration costs) • Additional costs associated with the monitoring, reporting and compliance management of duties, obligations and associated penalties
Collaboration/Partnerships	<ul style="list-style-type: none"> • Common and shared responsibilities, obligations & interests • Trust and relationship performance management through closer collaboration and development of new ways of working
Relational norms	<ul style="list-style-type: none"> • Shared norms, symmetric information through communication & joint decision making towards a common goal • Harmonisation of conflict & honesty within the relationship
Curbed opportunism	<ul style="list-style-type: none"> • Greater benefits with clear expectations and punishment for improved performance • Off sets contract weakness & mitigates self interest seeking
Shared outcomes	<ul style="list-style-type: none"> • Value creation beyond contract specificity with shared norms & values • Greater mutual benefits with gain share arrangements

Figure 2.12: The transactional, relational and mixed (strategic commercial management) procurement approaches model.

2.24 Hypotheses

The following hypotheses were formulated to test the links between procurement approaches and value creation and retention.

- HP1)** There is a significant and negative link between the use of transactional procurement approaches [a) Contract, b) Opportunism, c) Transactional Complexity] and Relationship Performance (Value) in the creation and retention of added value.
- HP2)** There is a significant and positive link between the use of relational procurement approaches [a) Relational Norms, b) Trust, c) Personal Relationships and Duration] and Relationship Performance (Value).
- HP3)** There is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined.

The theoretical model and the hypotheses identified above and their relative value creation and retention attributes are set out diagrammatically below in Figure 1.3. Each of the components and variables used in this model are defined and discussed in section 1.2 above.

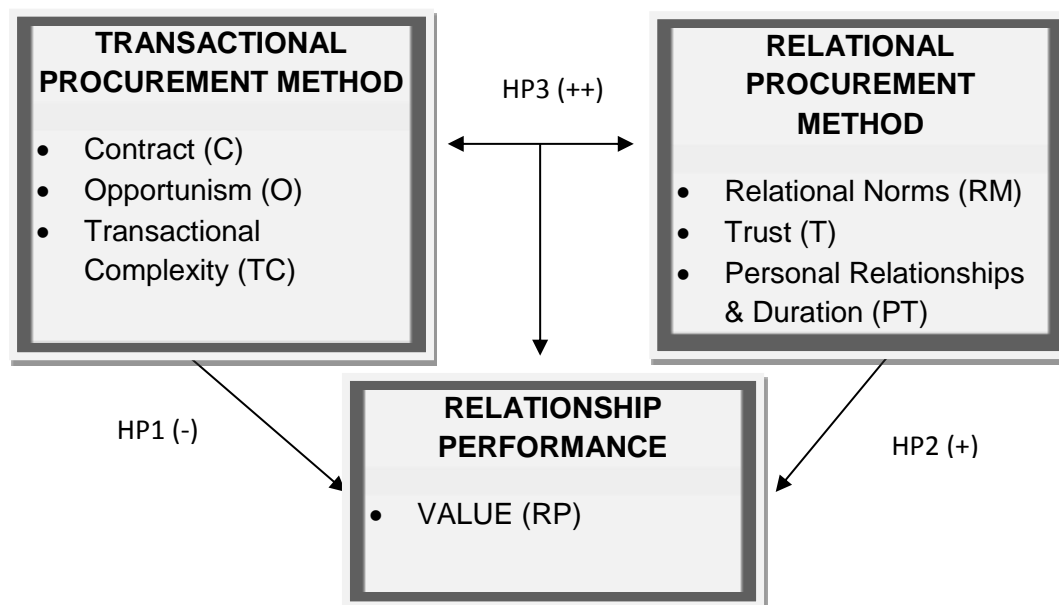


Figure 2.13: Theoretical Model and Hypotheses

2.25 Summary

This chapter primarily presents the results from the literature review. The primary search for relevant literature concentrated largely on literature relating to procurement, purchasing, sourcing, strategic sourcing, strategic outsourcing, supply chain management, partnership, collaboration, the UK public sector and value. This search identified 670 articles and publications that met the search criteria. A further search was conducted with a specific focus on public sector procurement to specifically limit and narrow the search findings to the specific area of focus which is public sector in general and more specifically the UK Public Sector. This was then combined with abstracts and key words searches, references from selected articles, a search for UK Public Sector publications such as the National Audit Office (NAO) and Public Accounts Committee (PAC) Reports and relevant documentation from Government Departments resulting in a final list of reviewed articles and documents of 129.

The reviewed literature identified procurement methods as representing a total of 45.30% of the total number of articles reviewed, within this, transactional represented 9.4%, relational 25.64% or the combination of both transactional and relational comprised of 10.26%, N=117. The second largest segment which is supply chain management had 13.68% followed closely by Public Sector Procurement at 14.02% which is the context within which this study is based. Value which is the core measurable element within this study was 8.55% and Strategic Supply Management represented 7.69%. This indicates that there is a large distribution of reviewed articles across the core themes that are connected with the core research objectives.

The literature review saw the competitive dialogue procedure as lending itself to extensive collaboration and partnerships within the UK public sector environment by opening up opportunities for such collaboration with the bidding partners. This procedure provides the UK public sector procurement groups with the legal instrument to engage in much more

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relational procurement activities and one that proactively engages with supply chain partners to develop effective and efficient supply chain solutions whilst creating added value for public sector procurement requirements.

The review of the procurement approaches adopted by the three Government Departments revealed that they have either already organised themselves (DWP) on the relational type contracting methodology based on output pricing or are developing strategies (HMRC and MOJ) to move to a similar approach in the future. The review also saw Value as including all of those variables that enable the provision of goods and services for the fulfilment of an organisation's requirements and also deliver both direct and indirect benefits to the partners in the exchange relationship. It showed that this could be direct cost benefit, savings, enhanced service delivery, total support services, trust, communication, relationship management etc.

The chapter in light of the literature review saw the consideration of how best to leverage and implement the most optimum approach and the identification of a number of other and critical success factors as a research gap. It also found that none of the literature reviewed directly links or connects the complexity of the UK Public Sector Procurement to the adoption of the most appropriate procurement approach in enabling the creation and retention of value and therefore seeks to bridge this gap. The chapter provides the research conceptual model and develops three core hypotheses.

The next chapter builds on the themes, prevailing research methodologies and adopted theories identified from the literature review to present the research methodology, the research design, the theory selection including a discussion of the theoretical influences and the theories underpinning this research.

CHAPTER THREE – METHODOLOGY AND RESEARCH DESIGN

3.1 Introduction

This chapter presents the methodology and research design. It begins with the research paradigm and covers the theory selection and theoretical influences, measurement, construct reliability and validity, data collection, methodological approach and factor analysis.

3.2 Research Paradigm

Central and core to this research area is an understanding of the role of the different purchasing or procurement paradigms within public sector procurement. Whilst transactional and relational purchasing paradigms remains pervasive in understanding the nature of public procurement per se and procurement more generally, there is however a move towards more relationship contracting (Lian and Liang, 2004: 248). This new paradigm according to Lawther and Martin (2005: 213) is often referred to as collaboration, networks, strategic alliances, partnerships, and others hence the increasing adoption of relational procurement methodologies both within the private and public sector procurement bodies.

Therefore and in order to fully investigate these emerging theoretical positions which are highly steeped in exploratory and case based methodologies, this study is based on a combination of mixed methods and builds on the philosophical underpinnings of ontology and interpretivism. Ontology being the philosophy of the nature of reality and the relations of beings or as a set of beliefs about what the world being studied actually is (Lee 2008: 11). It adopts a philosophical leaning on subjectivism which is based on the view that social phenomena are created from the perceptions and consequent actions of those social actors concerned with their existence (Saunders et al., 2007: 108). Interpretivism in this context is the combination of facts creatively with stimulating explanatory suggestions and the need to understand the social world of our research groups from their point of view (Remenyi et al.,

1998: 284). The research paradigm adopted is therefore aligned with interpretivism/constructivism.

3.3 Research Method and Design

Research methods are primarily concerned with the tools of data collection. It encompasses the research design which is a general plan of how the research questions are going to be answered. It contains clear objectives which are derived from the research question(s) or issue(s). It specifies the sources from which the research data is expected to be collected, and considers the constraints that are inevitable during the course of the research (for example, access to data, time, location and money) as well as some of the related ethical issues and concerns (Saunders et al., 2007: 131).

This research is underpinned by a plan and structure of investigation in order to obtain answers to the identified research issues. It also provides an outline of what the research is intended to achieve from the research objectives, the research issues and their operational implications to the data collection, validation and final analysis (Kellinger, 1986: 279).

3.4 Research Methods

3.4.1 Survey Instrument

A survey methodology based on confirmatory (theory testing) survey research is used to gather data and test the research hypotheses. This process allows for the clear articulation of the subject being studied in a theoretical form using clearly defined concepts, models and hypotheses with the aim of carrying out data collection specifically for testing the adequacy of the developed concepts, models and hypotheses (Forza, 2002:155).

By adopting a theory testing survey research approach, a conceptual framework and theoretical model is developed for this research study. This process includes the translation of the underpinning theoretical assumptions into the empirical domain, the design of the survey questionnaire and pilot testing, data collection for theory testing, analysis, results

CHAPTER THREE – METHODOLOGY AND RESEARCH DESIGN

interpretation and report writing. A similar approach is identified in Forza (2002:155-156) and in Dublin, (1978), Sekaran, (1992) and Wacker, (1998).

A clear definition and the role of all the constructs and variables (dependent and independent) developed for this research study is provided with a clear indication of the nature of the relationship based on evidence from previous studies as well as their linkages to relevant and prevailing theories as indicated in Forza (2002) and Amundson (1998). This research study therefore adopts a theory testing survey research process similar to what is set out in Forza (2002) as detailed below in figure 3.1.

The theory testing survey research process

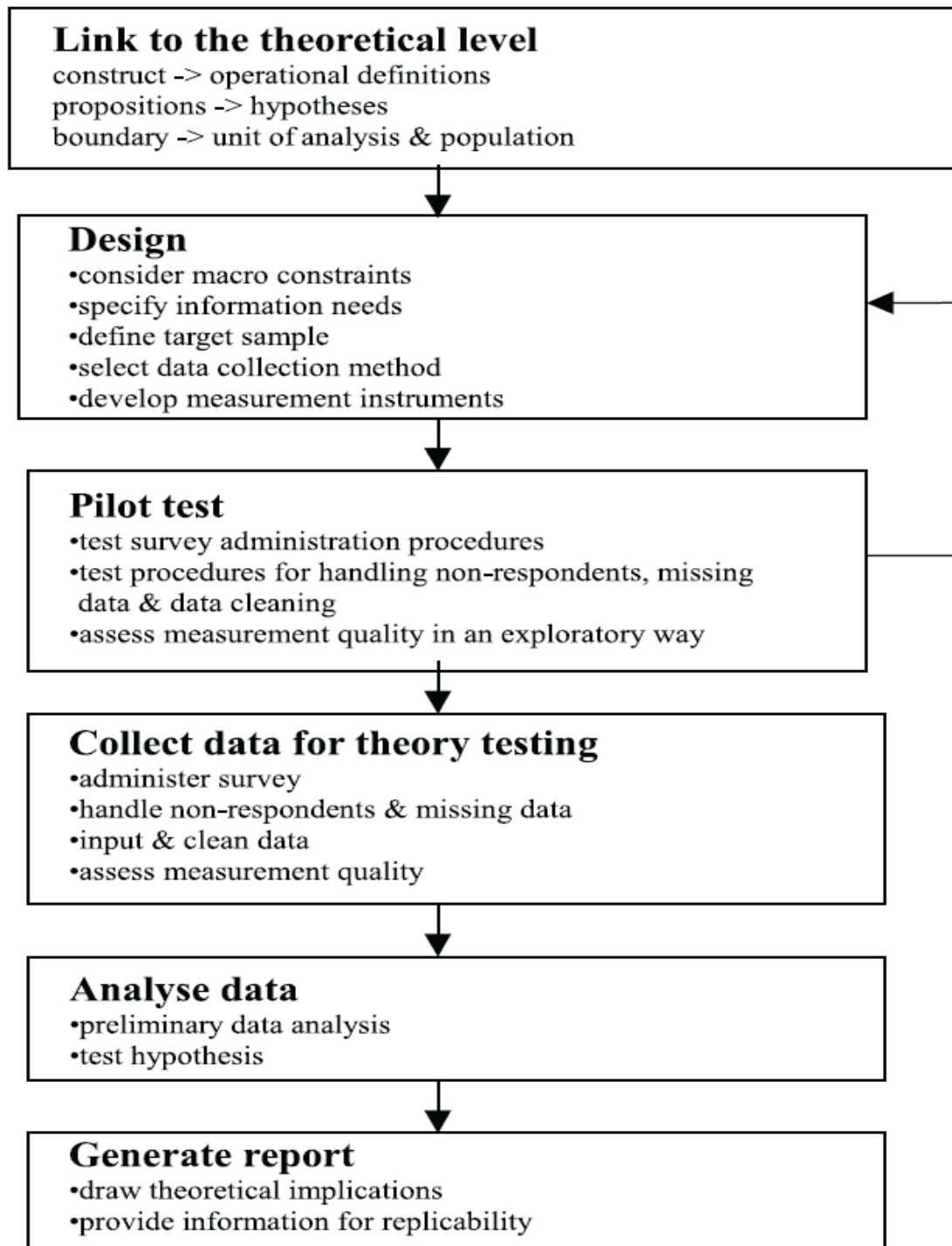


Figure 3.1: Theory testing survey research process

Source: Adapted from Forza, 2002: 157.

The survey instrument is therefore developed in the following four steps:

- It commenced with a literature review to inform the development of the initial pool of variables, targeted participants, interview questions and the sample questionnaire;
- A panel of public sector procurement experts and academics were invited to review the initial pool of variables and to provide feedback regarding their relevance, clarity, conciseness and sufficiency in supporting the delivery of the research objectives;
- A sorting procedure was performed with a number of scholars and supply management professionals. This procedure consisted of having practitioners and scholars act as reviewers to provide input on how best to structure and sort the variables into different groups, each group corresponding to a construct, based on similarities and differences and
- The developed instrument was administered through questionnaires and surveys to a sample of the UK public sector supply management professionals drawn from three Government Departments – The Department for Work and Pensions, the Home Office and Her Majesty's Revenue and Customs.

3.4.2 Research Sample

The sampling frame was limited to Officials of the Department for Work and Pensions, the Ministry of Justice and Her Majesty's Revenue and Customs. It also included a number of academic practitioners and research students at Aston University's Operations and Information Management Department. The limitation of the sampling frame to the three Departments is primarily to ensure that the survey bears as much relevance to the cases utilised as part of this research which was predominantly from the three referenced Departments. Typical respondents were senior public sector procurement and IT practitioners. The data was therefore collected from key informants with enough seniority to comment on their respective Department's Procurement activities.

A Sample size of 300 respondents comprising of 50 IT and procurement experts from each of the 3 Government Departments and a further 150 respondents from Government Supply organisations was originally envisaged for the study. Overall, 28 Government Official questionnaire responses and 7 supplier questionnaire responses were duly completed. The reasons for the low completion rate are provided below in section 3.9 (Data Collection).

3.5 Methodological Approach

This research study utilises both the quantitative and qualitative research methodologies to analyse two distinctly different aspects of the study. Whilst it applies quantitative approach for the determination of the optimum procurement approach for value creation and retention, it applies the qualitative approach to the identification of the critical success factors. Although most research focuses on one approach or the other but both the quantitative and the qualitative techniques are often combined or mixed (Grimmer, 2007: 59). Whatever the approach adopted, it is important that an objective and correct scientific method is utilised in order to prove objective reality (Grimmer, 2007; Carson et al., 2001; Jean Lee, 1992; Long et al., 2000; Neuman, 2003). This research therefore benefits from the researcher's objective and accurate viewpoint in describing the observed phenomenon as most qualitative research is believed to be conducted like this (Grimmer, 2007: 59).

This research study aims to identify appropriate solutions to real life issues that are presented by the UK Government's quest to find additional savings and efficiencies from its procurement services. This aim is in line with quantitative modelling techniques utilised in operations management which is oriented towards solving real real-life problems rather than just developing scientific knowledge (Forza, 2002: 241).

A quantitative model based research is adopted to assist with developing appropriate models with causal relationships between dependent and independent variables which will be analysed, tested and utilised in predicting which of the procurement methods considered will deliver the most optimum value. It will be driven by empirical findings and underpinned

CHAPTER THREE – METHODOLOGY AND RESEARCH DESIGN

with statistical measurements with the aim of achieving model fit. This research technique is similar to those adopted in Forza (2002) and those initially developed in Forester (1961) where the scientific theoretical models of operational processes were used to explain and predict their dynamic behaviour and performance. Similar quantitative approaches were also adopted in Fine (1998) and Mendelson and Pillai (1998).

The adoption of this type of quantitative model based research and the causality effect of the adopted variables i.e. dependent and independent variables, there is an underlying assumption that a change of value in one variable (independent) will lead to a change in another variable (dependent). Similar observations were made in Forza (2002: 249) where it was concluded that causal and quantitative relationships can be used to predict a future state rather than depending on observations and that within the model all claims are therefore unambiguous and verifiable.

The research study adopts a similar approach to those contained in Mitroff et al.'s (1974) model which consists of a number of distinct phases including conceptualisation, modelling, model solving and implementation. The conceptualisation phase includes the development of a conceptual model of the study, the variables that need to be included in the model, the scope of the problem and the issues to be addressed. The quantitative model which defines the causal relationship between the variables is developed and followed by a series of regression analysis as part of the model solving and predictive analysis phase.

The adoption of the explorative research techniques, the use of case-based methodology, focus groups and questionnaire are common across a number of researches in this area. Studies such as Schiele and McCue (2006: 305), Knox and Denison (1989: 33), Humphries and Wilding (2004: 263), Love et al., (2008: 762-763), Murray et al. (2008: 545), Quayle (2001: 45-46), Lian and Liang (2004: 250) and others utilised this methodological approach.

These research studies combined these methodological approaches with appropriate statistical tools and techniques to manipulate the data in testing the applicability of different

variables, the research questions or issues posed as well as relevant hypotheses. This way they were able to adopt either the qualitative or quantitative research methodology to test and validate some of the underpinning assumptions. A combination of these approaches are therefore utilised for this study to ensure as full an understanding of the issues as possible.

3.5.1 Quantitative Methodology

This research study utilises the quantitative methodology by collecting and analysing data numerically, treating experiences as similar and utilising statistical analysis as manipulation tools in order to form an opinion or make a judgment. Several of the research reviewed from the literature and prior work utilised these sources to define the variables used for data gathering and hypotheses testing. This approach of developing the variables used for data gathering and hypotheses testing from reviewed literature and prior work will be adopted for this research alongside other approaches. Some of the reviewed literature and prior study which adopted a similar approach includes Pagano (2009), Liu et al., 2009, Kausik and Mahadevan (2012), Shook et al. (2009), Ning and Ling (2015), Sande and Haugland (2015) and Cao, Z., Lumineau, F. (2015) and Kamalahmadi and Parast (2016).

The research study utilises survey instruments such as questionnaires to produce quantitative measures for testing the effect of variables on the developed research issues. This method is predominantly used in social research and allows for the deployment of pre-populated questions designed to test the attitudinal responses of the desired population or target group. It requires some form of sampling, coding and analysis of the responses in order for the received data to become meaningful. The quantitative measures that are developed are then utilised to establish effective constructs in testing the effect of several variables to identify those factors that has some impacts or significance on the research issues, objectives and hypotheses.

As indicated in Sandelowski (2000: 252) it is important to link the quantitative methodology approach to the delivery of the investigative research. Studies conducted in this area

including Liu et al., 2009, appear to have achieved this by collecting and treating data sets with the techniques associated with the use of such data i.e. quantitative techniques. Statistical technique such as the multiple linear regression modelling analysis is employed in this research as useful tools for data manipulation, standardisation and comparability.

However, this methodology is limited in this general field of research because it focuses primarily on the use of quantitative measures for explaining certain aspects of behavioural practice where human behaviour could be studied, explained, observed, reported and analysed through a combination of methods such as action research.

This research study therefore utilises similar quantitative techniques as described above for investigating research objective 1 to help inform data collection, manipulation and analysis. Statistical techniques such as the random stratified multi-stage sampling procedure and the multiple linear regression modelling analysis are utilised to ensure the validity, integrity and robustness of the research process and the research findings. Additionally, this is combined with elements of action research to ensure that human behaviour is appropriately observed, studied, reported and analysed from the viewpoint of those being studied.

3.5.2 Qualitative Methodology

This research study in addition to the quantitative methodology described above also utilises the qualitative methodology which is much more about the description of events or people without necessarily the use of statistical or numerical data. Data is collected through a survey as described above in section 3.7. This is to capture respondents' views on how best to leverage the best procurement methods and also to identify the critical success factors for implementing the best procurement approach. The NVivo software is used to conduct the qualitative analysis, this is combined with elements of action research to ensure that human behaviour is appropriately observed, studied, reported and analysed, a process similar to what was adopted for the quantitative process described above in section 3.5.1. This methodology is applied to the investigation of research objectives 2 and 3. The following

research studies in the general area of public procurement adopted a similar approach to the one described above in the foregoing paragraph - Schiele and McCue (2006: 305) Knox and Denison (1989: 33), Love et al. (2008: 762-763), Murray et. al. (2008: 545), Quayle (2001: 45-46) and Lian and Liang (2004: 250).

The qualitative methodology provides the basis for eliciting opinions and issues emerging from the literature review. Pilot interviews were conducted to scope the questions to be asked and the questionnaire to be developed. This process was limited to senior public sector procurement and IT officials and suppliers of IT Desktop Services to the identified Government Departments. Participants were drawn from three Government Departments - the Department for Work and Pensions, the Home Office and Her Majesty's Revenue and Customs and their IT Desktop Service provider community. In summary, some of the objectives identified above especially objective 1 naturally lend themselves to the quantitative methods, whereas objectives 2 & 3 is critically examined and reported on by utilising the qualitative methodology.

3.5.3 Mixed Methods

With the research issues primarily situated in the comparative analysis of public sector procurement, it is important that all of the approaches described above are utilised i.e. a combination of qualitative and quantitative methodological approach. This is then triangulated to achieve a validated outcome to ensure the full understanding of all the issues and variables at play whilst achieving a high degree of validity and verifiability.

The qualitative data collected from questionnaire responses are both closed and open ended which will be subsequently interpreted for meaning as illustrated in Edmondson and McManus (2007: 1160). By combining this with the quantitative techniques adopted through questionnaires and the use of statistical tools for testing, significant variables could be developed and appropriately tested to determine the effect on the developed research issues, objectives and hypotheses.

The following chart shows schematically how the analyses from both methods (quantitative and qualitative) was carried out in this research.

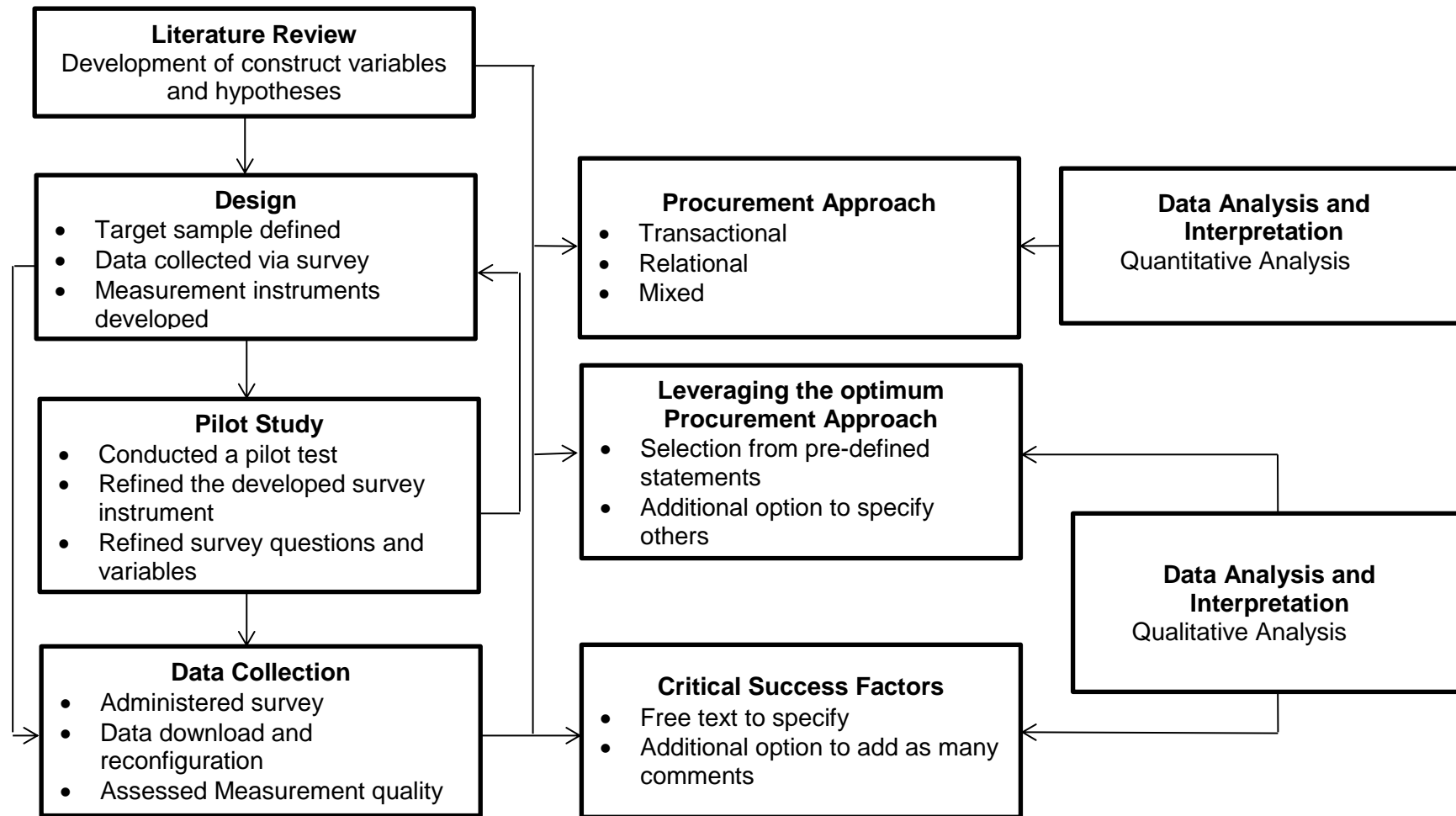


Figure 3.2: Schematics of Quantitative and Qualitative Data Analysis

3.6 Theory Selection

Most of the prior researches reviewed in this study are primarily based on established transactional and relational conceptual frameworks and theories. Similarly the exploratory and case-based methodologies were utilised, the kind of methodologies that are “useful in developing well-grounded theory and is especially helpful in explaining how and why events have occurred” (Schiele and McCue, 2006: 305).

Relational theories has existed for a while in the private sector procurement research for example it is indicated that in certain cases some of the best practice approach in the private sector is for the purchaser to work in close collaboration or partnership with one or two suppliers, this according to Lian and Liang (2004: 248) highlights the transition in private sector contexts from transactional models to more co-operative, relational procurement models.

In Lian and Liang (2004: 248) relational models are described as having their base in the interaction model developed by the European dominated IMP Group (Ford, 2002). In this model, the procurement organisation is seen as being active to the point where adaptations are made. The exchange is believed to be through an on-going interaction, the process being less formal and supplemented by informal contacts. It recognises the need to keep existing customers as important as attracting new ones and it adopts a longer-term perspective, thereby resulting in a shift towards more co-operative exchanges with fewer suppliers and creating the basis for the formation of long-term relationships with preferred suppliers. As these relationships overlap, the boundary of organisations effectively dissolves with each relationship lying in a wider network of inter-dependent professional and social relationships, (Ford, 2002).

3.6.1 Theoretical Influences

Some of the theoretical influences of transactional and relational procurement is illustrated below in Figure 3.3 the theoretical influences of PPP. The illustration provides a

diagrammatical representation of the linkages and relationships between transactional theories and relational theories. It also builds on transaction cost theory, the theory of contract and the theory of organisation. Some of these theories are utilised in this study as conceptual frameworks in understanding the methodological approaches and developments in both the public and private sector procurement.

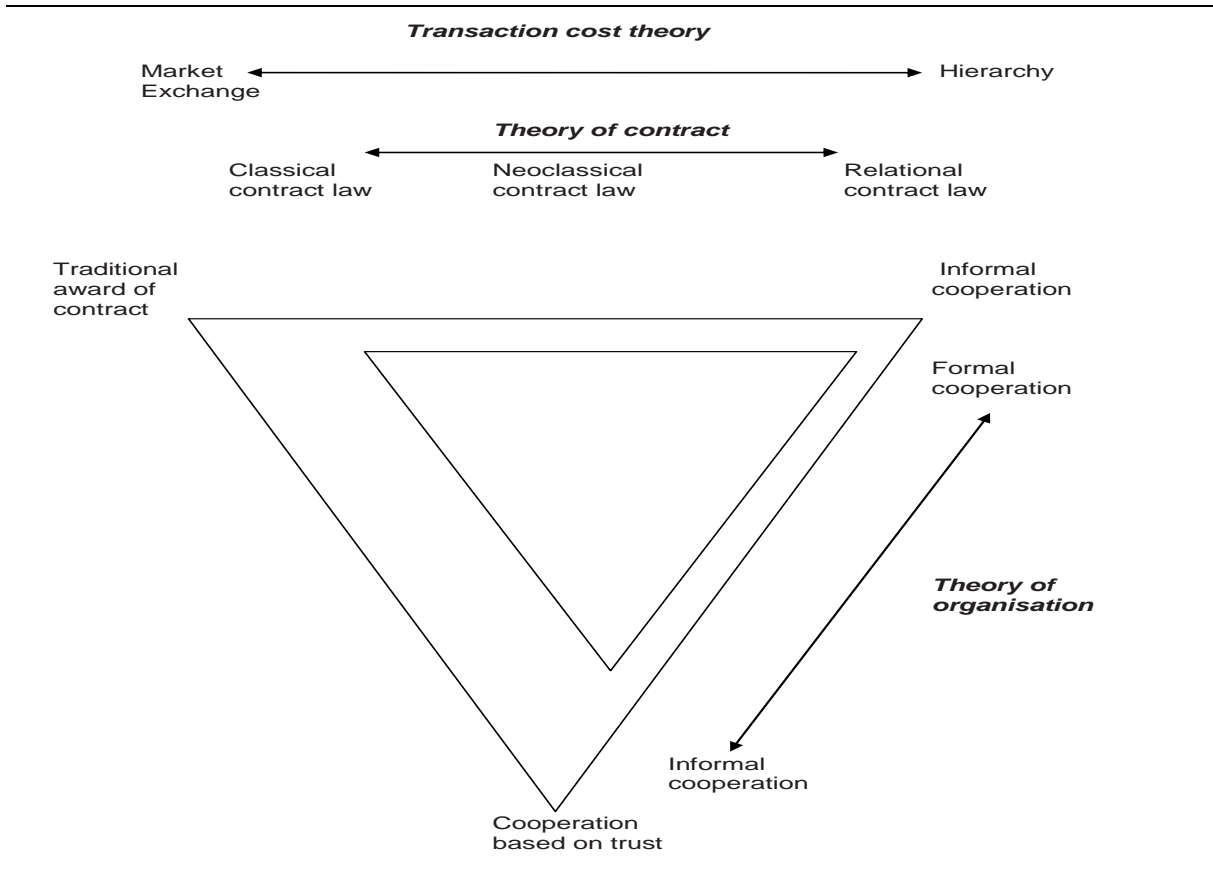


Figure 3.3: Theoretical influences of PPP
Source: Adapted from Budaeus et al. 1997 and Essig and Batran, 2005: 225.

There are however a number of prevailing theories that can be considered appropriate to this general research area, some of these includes the agency, contingency, relational governance, resource-based, systems, transaction cost, transaction cost economics, core competence, grounded and other theories. As identified in Table 3.1 below, this research adopts two of these theories and these are transaction cost and relational governance, it will also draw some inferences from the application of contingency theories.

Adopted research theories

Theory	Theory Summary	Impact for research
Transaction Cost Theory	<ul style="list-style-type: none"> • Allows for interparty exchanges, avoids uncertainties via legal stipulations and economic incentive systems (Yi Liu et al.: 2009). • Implies a degree of economic behaviour governed by monetary exchanges. • Could potentially be useful in mitigating opportunism and improving relationship performance for participating organizations (Yi Liu et al.: 2009; Smith and Barclay, 1997; Dahlstrom and Nygaard, 1999; Cannon et al., 2000; Cavusgil et al., 2004; Heide and John, 1992; Jap and Ganesan, 2000; Lusch and Brown, 1996; Popo and Zenger, 2002; Wuyts and Geyskens, 2005). 	<ul style="list-style-type: none"> • Provides the basis for understanding the appropriateness and effectiveness of transactional procurement methods within specific procurement categories. • Has the potential for the development of a scale for comparing transactional with relational methods and in understanding their varying contributions. • Employed in this research to determine which of the procurement methods considered provides the most optimum value proposition and against which procurement category.

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Relational Governance Theory	<ul style="list-style-type: none"> • Attempts to embed exchange partners to ensure that their goals are in close alignment and their joint utility is maximised (Stephen and Coote, 2007: 285). • Emphasise informal and moral control, governing exchanges through consistent goals and cooperation (e.g., Mishra et al., 1998; Wright et al., 2001). • Could potentially mitigate opportunism and improve relationship performance (Yi Liu et al. 2009: 294). • Relational norms fill gaps in explicit contracts and formal understandings, and are manifest in relational behaviours (Lusch and Brown, 1996). • Achieving common goals, flexibility, solidarity, information exchange and trustworthiness is seen as a prerequisite (Dwyer et al., 1987; Morgan and Hunt, 1994; Heide and John, 1992; Stinchcombe, 1986). 	<ul style="list-style-type: none"> • Provides the basis for understanding the appropriateness and effectiveness of relational procurement methods within specific procurement categories. • Has the potential for the development of a scale for comparing transactional with relational methods and in understanding their varying contributions. • Provides the theoretical basis for investigating the most prevalent methods within the UK public sector procurement groups.
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Table 3.1: Adopted research theories

3.6.2 Theory underpinning this research

Strategic supply management in the UK Public Sector is critical for a successful creation of added value through the management of supply relationships within the public sector supply chain. This ordinarily manifests itself through the exploitation of the relative power and product or service differentiation that exists between the interacting and at times competing parties within the supply chain. It also offers public sector supply chain managers the opportunity to engage in transactional, relational relationships or a mix of both types of relationships for those products and or services that naturally lend themselves to these forms of approaches. Therefore and in order to understand the relative adoption of these contracting methods within the UK public sector supply chain management, this research study seeks to explore the relevance of the transaction cost and relational theories or the combination of both in creating and retaining value.

3.6.3 Transaction Cost Theory

It has been generally described that transaction cost analysis supplemented by a consideration of economies of scale and scope provides a powerful framework for analysing government procurement policy (Parker and Hartley, 2003: 100). However, in Williamson (1985: 47 – 48) there are three additional and associated considerations and related concepts which are bounded rationality, opportunism and asset specificity.

Bounded rationality implies rational decision making by buyers and sellers but under conditions of incomplete information. Opportunism refers to the incomplete or distorted disclosure of information, especially with calculated efforts to mislead, distort, disguise, obfuscate or otherwise confuse. The result of bounded rationality and opportunism is the risk that one or other of the parties to a transaction or series of related transactions will exploit his or her information advantage. This is described in Williamson (1983: 26) as 'self-interest seeking with guile'.

The transaction cost theory assumes that interparty exchanges, which avoids uncertainties through legal stipulations and economic incentives ensures that the procurement process can be transacted between the buying and the selling organisations (Liu et al., 2009: 294). It assumes that relationships are governed through monitoring and incentive-based structures that are clearly set out within well specified contracts that aim to protect specific investments from opportunistic behaviour (Williamson, 1985 and Liu et al., 2009: 295).

There is an assumption that by making the relationship contractually explicit, clear and mutual, expectations are stipulated before the exchange and precise behavioural boundaries are pre-specified as well as the duties of both parties, along with key performance indicators and penalties for agreement violation. It is identified as being able to prevent opportunistic behaviour through the application of contractually binding legal forces (Liu et al. 2009: 296). It additionally identifies the rights and obligations of both parties through appropriate terms and conditions and provides for how future positions should be dealt with including a consideration for contract performance incentives (penalties associated with contract default).

3.6.4 Transactional Theory

Transactional theories bind relationships through contractual compliance or profit motivation. They allow partners to be much more innovative in the value creation process over and above what is specified in the contract. They are also adaptive and flexible to changing environments, new developments and emerging challenges (Liu et al., 2009: 299).

Consequently, the most appropriate procurement method (transactional or relational) should be adopted for specific procurement categories and that where possible both methods could be combined to ensure optimum value delivery.

In Lian and Liang (2004: 248) transactional purchasing is deemed to be “underpinned by neo-classical economic assumptions, in particular that in a perfect market, open market competition is the most efficient form of exchange. Exchanges are viewed as discrete arms-

length, one off transactions”. Similar transactional theories and perspectives are equally captured in Robinson et al. (1967), Webster and Wind (1972), Sheth (1973), Liu et al., (2009) Ning and Ling (2015), Sande and Haugland (2015) and Cao and Lumineau, (2015). It is suggested that “one consistent feature of the transactional models typified by the Buygrid framework (Robinson et al., 1967) is that the buying process is framed in terms of a buy stage or buy phase approach describing a discrete, linear sequence of activities in the buying process” (Lian and Liang, 2004: 248). Within the public sector, the transactional paradigm has been embraced by the European Union (EU) and United Kingdom (UK) governments, as evidenced in purchasing guidance for public sector organisations which emphasises competitive tendering as the means of optimising procurement efficiency (HM Treasury, 1998).

This research study is therefore underpinned as discussed above with the theoretical and conceptual framework of the transactional and relational theory. It utilises the transaction cost and relational theories to adequately articulate the relative value proposition between the two comparative positions i.e. transactional versus relational public procurement practice.

3.6.5 Relational Theory

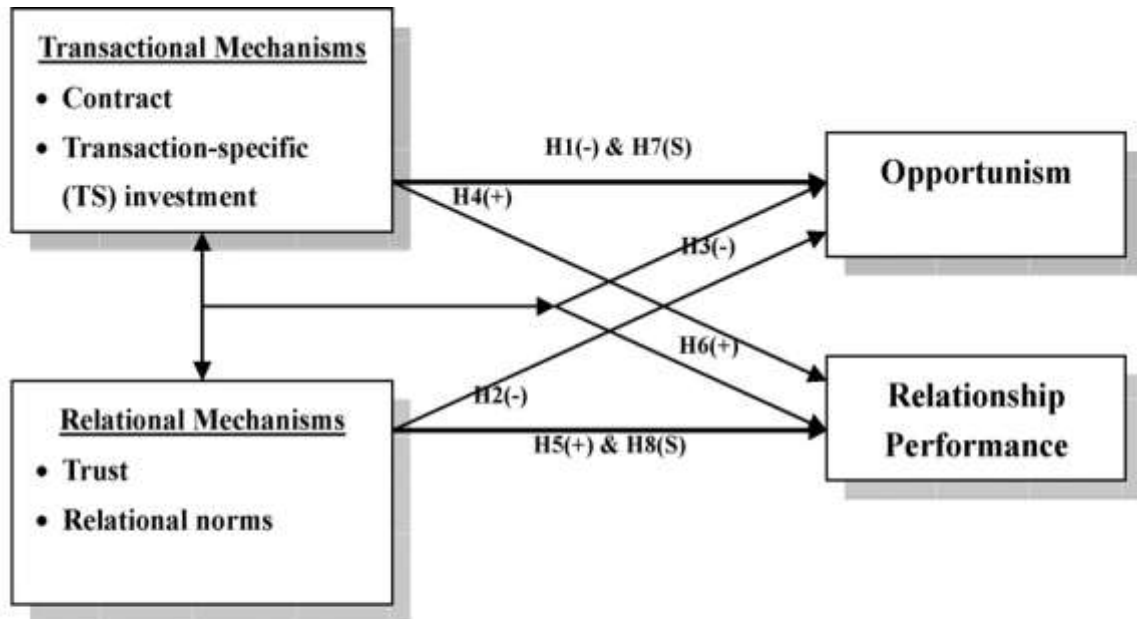
In Parker and Hartley (2003: 101) relational theory is seen as placing more reliance on reputation and trust as part of relationship building, contract and commercial relationships, with the threat of opportunistic behaviour ex ante and ex post contracting remaining. They contend that as Organisational boundaries are becoming much more fluid, involving networking, joint ventures, strategic alliances, partnership sourcing and that “PPPs including in the UK PFIs are part of this new ‘relational contracting’ environment aimed at reducing costs, speeding up time to market, and promoting innovation. They involve a change in the boundary of government and blurs the distinction between public and private provision” (Parker and Hartley, 2003: 101). PPP in this context means public and private partnership whilst PFI stands for private finance initiative.

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Relational theories rely on inherent and moral control for governing exchanges through consistent goals and cooperative relationships (Liu et al., 2009: 294). They also serve as useful instruments for controlling opportunism and nourishing cooperation in buyer–supplier engagements (Liu et al. 2009: 295).

Through appropriate Information exchange the parties involved in the relational contracting method are able to share and have access to symmetric information through effective communication. This helps to promote the harmonisation of conflict and honesty within the exchange. It also enables the sharing of common decisions and the establishment or re-establishment of the goals of the relationship (Liu et al., 2009: 296).

Figure 3.4 below which is adapted from Liu et al. (2009: 297), attempts to capture some of the attributes of transactional mechanisms such as contracts and transaction specific investments and draws a positive correlation between these and opportunism. Similarly, it identifies relational mechanisms with the attributes of trust and relational norms. It also attempts to draw a positive correlation between trust, relational norms and relational performance described in this study as value.



Contract: Stipulates the rights and obligations of both parties through formal rules, terms, and procedures; explicitly states how various future situations will be handled

TS investment: Tangible and intangible investments tailored to a particular long-term supply chain

Trust: Confidence or belief that one partner possesses about the honesty and benevolence of the other partner

Relational norms: Expected norms shared by a group of decision-makers and directed toward collective goals

Opportunism: Self-interest seeking with guile

Relationship performance: Shared outcomes for all parties arising from a cooperative relationship in the form of increased sales, market share, etc.

Figure 3.4: Transactional and Relational mechanisms

Source: Adapted from Liu et al., 2009: 297.

3.7 Summary of the different transactional and relational mechanisms considered

Table 3.2 below provides a summary of all the transactional and relational mechanisms discussed above in the discussion of the theory underpinning this research. It also highlights the gaps in each of the mechanisms discussed.

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Model	Summary	Gap
Parker and Hartley (2003)	Transaction cost analysis supplemented by a consideration of economies of scale and scope	Limited to transaction costs.
Williamson (1985)	Transaction cost analysis with related concepts which are bounded rationality, opportunism and asset specificity.	Extends the use of transaction cost analysis to include bounded rationality, opportunism and asset specificity but doesn't offer up any relational attributes such as trust to counter opportunism.
Williamson (1985) and Liu et al. (2009)	Assumes that relationships are governed through monitoring and incentive-based structures that are clearly set out within well specified contracts that aim to protect specific investments from opportunistic behaviour	Does not recognise the value in collaborative/relational methods.
Lian and Liang (2004) Robinson et al. (1967), Webster and Wind (1972), Sheth (1973), Liu et al., (2009) Ning and Ling (2015), Sande and Haugland (2015) and Cao and Lumineau, (2015)	Assumes that transactional procurement is underpinned by open market competition as the most efficient form of exchange. Transactions here are deemed to be arms-length, one-off, linear, discrete, sequential and competitive.	Fails to acknowledge the value in longer term, collaborative, mutual dependence, cooperation and effective communication that exist in relational procurement.
Parker and Hartley (2003)	Relational approaches places reliance on reputation and trust as part of relationship building.	Ignores the need for written contracts with performance incentives for driving the right set of behaviours.
Liu et al. (2009)	Relational theories rely on inherent and moral control for governing exchanges through consistent goals and cooperative relationships. They help control opportunism, harmonise conflicts, honesty and the sharing of common decisions and goals.	Disputes may arise due to the lack of formal contractual obligations and written contracts.

Table 3.2 Summary of the different procurement models considered

3.8 The methodology for determining the critical success factors

Survey respondents were asked to list the critical success factors that will enable the implementation of the best-performing procurement method in the UK public procurement. As a guide for the type of critical success factors to consider, they were provided with a number of examples including the recruitment and retention of highly capable and qualified staff; the creation of a pan Government Centralised and flexible Procurement Function, the vestment of the Procurement Buying Authority on a Centralised Procurement Authority; the development of a core group of suppliers for the delivery of services to all Government Departments etc.

The responses on the identified critical success factors from the survey will be clustered into 6 core groups of critical success factors as identified from the literature review in Section 2.16. The clustered groups of critical success factors which are human, process, Institutional, strategic, cross-domain and operational will then be used to group and analyse all the responses from survey respondents. A number of studies on critical success factors including Chan et al., (2006), Luftman & Kempaiah (2007), Chan & Reich (2007) and Schlosser et al. (2012) adopted a similar approach in clustering or structuring their concepts into various dimensions, levels and categories.

The analysis of the identified critical success factors from the survey will be conducted in the NVivo software. The critical success factors will be grouped into recurring themes such as capability, capacity, recruitment and retention etc. with further clustering into core groups of critical success factors such as human, process, Institutional, strategic, cross-domain and operational. They will also be ranked by sorting the factors according to the frequency of the responses received. The factor(s) which has the highest frequency will be ranked as the most critical success factor, followed by the second and so on and so forth. This sorting procedure is similar to what was adopted in Belassi and Tukul (1996: 145-146) in a

nationwide survey conducted of project managers who were asked to identify critical factors for the successful completion of their projects.

3.9 Data Collection

To test the identified hypotheses a survey questionnaire was deployed to both Government Officials who are referred to as the buyers of the service and Suppliers who are referred to as suppliers of the service. Three major Government Departments were selected as part of the study group. The selected Government Departments were the Department for Work and Pensions (DWP), Her Majesty's Revenue and Customs (HMRC) and the Ministry of Justice (MoJ). On the supply side, the survey questionnaire was deployed to the IT Desktop Supply organisations that provide IT Desktop Services to the selected Government Departments namely Hewlett Packard (HP), Atos Origin, Fujitsu, Steria, BT, Cap Gemini, IBM, CSC and SCC.

A 7-point Likert scale with end points of “strongly disagree” and “strongly agree” was used to collect and measure the items in the survey (see Appendix A and B). A similar scale was used in a number of related studies including Liu et al. (2009). Some of the variables used in the questionnaire were adapted from past studies and related literature with new and additional variables developed and added. The Bristol Online Survey (BOS) Survey maker was used to develop, deploy the survey and collate the respective responses.

An initial pre-pilot (3) and pilot test (6) with selected public sector procurement professionals and IT experts selected from the 3 Government Departments was conducted. Firstly to test the ease and appropriateness of the questions and variables being sampled and also to establish the length of time, understanding of the questions and the ease with which the questionnaire could be completed by respondents. The outcome of these pre-pilot and pilot tests was used to achieve the further refinement of the questions and the addition of several new variables.

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A Sample size of 300 respondents comprising of 50 IT and procurement experts from each of the 3 Government Departments and a further 150 respondents from Government Supply organisations was originally envisaged for the study. However, given the nature and complexity of the UK public sector organisations, fewer responses were actually received with supply organisations electing to provide a single response on behalf of each of the participating organisation. Similarly, Government officials and suppliers alike expressed serious concerns about the informed consent, the use and accessibility of the collected data, the use of the organisation's name in respect of the collected data and findings and the need to sign a consent form. Both Government Officials and Suppliers were also bound by numerous restrictions, non-disclosure/confidentiality agreements and the Official Secrets Act which places limitations on them from commenting on Government activities, policies, contractual obligations, performance and remedies. Notwithstanding the limited responses, the fewer responses received is deemed to be fully representative of the views and perceptions from those organisations both Government Departments and their IT Desktop providers who completed the survey.

The survey was initially launched during October 2012 with a December 2012 end date (approximately 3 months) but due to the fewer number of responses, there were several follow-ups and reminders through organisational representatives and directly with some of the potential survey respondents. The survey was subsequently extended to end during March 2013 a further 3 month extension. In addition to recruiting the support of Chief Information Officers, Commercial Directors, Account Directors and others, the questionnaire was also placed in team e-rooms, chat rooms, information notice boards, LinkedIn and Yammer to try and elicit participation. Overall, 28 Government Official questionnaire responses and 7 supplier questionnaire responses were duly completed. The low number of responses in addition to those described above is believed to be directly linked to the fewer number of Officials directly involved with the IT Desktop procurement from the Government and the supplier side. Additionally a number of the potential respondents felt unable to

complete the questionnaire because they weren't directly involved in the capture and reporting of the IT Desktop associated value.

The foregoing discussion highlights the weaknesses associated with the data collection for this research study, especially for the statistical analysis, with a very small sample size ($n=35$). These weaknesses could have been mitigated if the scope of the survey was expanded to include all UK Government Departments rather just the three that were selected. Similarly, the scope of the procurement category selected for this research could have been expanded to all UK Government procurement categories rather than just the Desktop IT procurement. By opening up the scope as described above, the survey completion rate would have increased significantly. This option was not pursued in this study due to time constraints and the need to limit the scope of study to a single procurement category. As indicated in section 1.2, the three Government Departments were selected primarily because of their size and general influence within the UK public sector, they each have highly complex and a mixture of in-house and outsourced IT desktop provision. Additionally and as identified previously in Chapter 2 in the analysis of their respective IT Sourcing Strategies they each adopt different procurement methods with the DWP adopting a more relational procurement method and the HMRC and MoJ adopting a more transactional procurement method.

Similar to the approach adopted in Liu et al. (2009), by capturing the responses to the survey from both Government Officials and Suppliers, the risks associated with the single-side, single-informant related common method variance bias is significantly reduced. The survey data used for the quantitative and qualitative analysis were collected using the same survey tool, from the same respondents and at the same time. The qualitative data specifically was collected in the form of respondents free-text and selection from a range of pre-determined options.

An exploratory factor analysis was conducted (see Table 4.3: Construct reliability and validity) on both the dependent and predicting variables for both Government Officials and Suppliers and the Combined Government Officials and Suppliers data in order to eliminate the common method bias. The statistical output from this analysis demonstrated that no one factor is responsible for most of the covariance for all the variables considered. A similar approach was adopted in Podsakoff and Organ (1996) and repeated in Liu et al. (2009).

As suggested in Fisher (1993) and in Liu et al. (2009), it is important to test for the social desirability bias; questionnaire respondents were informed that their responses will be anonymous. They were also made aware that the survey was specifically designed for research purposes only, more specific and less direct questions were also used in the questionnaire and respondents were informed that there were no right or wrong answers in the survey. All of these steps were intended to help reduce the social desirability bias in the survey responses.

3.10 Measurement and Validity

As indicated above, the 7-point Likert Scale was used to measure a number of the variables (see Appendix A and B). However, the scale could not be used for other variables such as leveraging the most appropriate procurement methods across Government (a tick box from pre-identified statements with an option to specify others was used instead). Other variables such as the critical success factors for implementing the best-performing approach in the UK Public Procurement were also sampled outside of the Likert Scale (a free text question which allowed respondents to add as much comments as they wish was used. Some examples were also provided to help guide respondents). Finally some contextual questions on which Government Departments or Suppliers respondents are from and to which Government Departments responding suppliers supply to, were also included in the questionnaire. The adoption of this type of approach allows for the collection of both quantitative and qualitative data and provides respondents with the opportunity to make some direct and useful contributions to the research.

A number of variables were developed to measure the contribution of the various procurement methods to the creation and retention of value. These were initially segmented into transactional and relational variables, each of these were further segmented into a number of additional variables under both transactional and relational procurement methods. A number of these variables were adapted from Liu et al. (2009) and other relevant literature but refined and made more appropriate to the UK public procurement context, value delivery, value appropriation and retention. Additional variables were also developed from the output from the pilot and pre-pilot surveys. The developed variables are transactional (contract, opportunism, complexity), relational (norms, trust, personal relationships and duration and performance (value)). Definitions of these variables are provided in Chapter One under Procurement Approaches.

3.11 Summary

This research study adopts the explorative research techniques, case-based methodology, utilised focus groups and survey questionnaire. It utilises a combination of mixed methods and builds on the philosophical underpinnings of ontology and interpretivism. It uses the survey methodology to gather data and test the research hypotheses. This research combined these methodological approaches with multiple linear regression analysis to manipulate the data in testing the applicability of different variables, the research issues posed as well as the identified hypotheses.

This research utilises the quantitative methodology by collecting and analysing data numerically, treating experiences as similar and utilising statistical analysis as manipulation tools in order to form an opinion or make a judgment. It also utilises survey instruments such as questionnaires to produce quantitative measures for testing the effect of variables on the developed research issues. This methodology is applied to the investigation of research objective 1.

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In addition to the quantitative methodology this research also utilises the qualitative methodology. Data is collected through a survey to capture respondents' views on how best to leverage the best procurement methods and also to identify the critical success factors for implementing the best procurement approach. The NVivo software is used to conduct the qualitative analysis, this is combined with elements of action research to ensure that human behaviour is appropriately observed, studied, reported and analysed. This methodology is applied to the investigation of research objectives 2 and 3.

To test the identified hypotheses a survey questionnaire was developed and deployed to both Government Officials and their Suppliers. Three major Government Departments were selected as part of the study group and these are the Department for Work and Pensions (DWP), Her Majesty's Revenue and Customs (HMRC) and the Ministry of Justice (MoJ). On the supply side, the survey questionnaire was deployed to the IT Desktop Supply organisations that provide IT Desktop Services to the selected Government Departments namely Hewlett Packard (HP), Atos Origin, Fujitsu, Steria, BT, Cap Gemini, IBM, CSC and SCC.

This chapter considered and discussed a number of prevailing theories in the specific field of study. These were identified as Transaction Cost Theory, Relational Governance Theory and Contingency Theory.

A 7-point Likert scale with end points of "strongly disagree" and "strongly agree" was used to collect and measure the items in the survey. Some of the variables used in the questionnaire were adapted from past studies and related literature with new and additional variables developed and added. The Bristol Online Survey (BOS) Survey maker was used to develop, deploy the survey and collate the respective responses.

An initial pre-pilot (3) and pilot test (6) with selected public sector procurement professionals and IT experts selected from the 3 Government Departments was conducted. Firstly to test the ease and appropriateness of the questions and variables being sampled and also to

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establish the length of time, understanding of the questions and the ease with which the questionnaire could be completed by respondents. The outcome of these pre-pilot and pilot tests was used to achieve the further refinement of the questions and the addition of several new variables.

An exploratory factor analysis was conducted on both the dependent and predicting variables for both Government Officials and Suppliers and the Combined Government Officials and Suppliers data in order to eliminate the common method bias. The statistical output from this analysis demonstrated that no one factor is responsible for most of the covariance for all the variables considered.

The 7-point Likert Scale could not be used for other variables such as leveraging the most appropriate procurement methods across Government (a tick box from pre-identified statements with an option to specify others was used instead instead). Other variables such as the critical success factors for implementing the best-performing approach in the UK Public Procurement were also sampled outside of the Likert Scale (a free text question which allowed respondents to add as much comments as they wish was used).

Finally some contextual questions on which Government Departments or Suppliers respondents are from and to which Government Departments responding suppliers supply to, were also included in the questionnaire. The adoption of this type of approach allows for the collection of both quantitative and qualitative data and provides respondents with the opportunity to make some direct and useful contributions to the research.

The next chapter discusses and presents the results of the survey including the construct reliability and validity tests, factor analysis, the methodological approach for the statistical analysis and the analysis of the statistical results from the multiple linear regression testing.

4 CHAPTER FOUR - RESULTS

4.1 INTRODUCTION

This section presents the results of the questionnaire survey that was deployed to respondents from three selected major UK Government Departments which are the Department for Work and Pensions (DWP), the Ministry of Justice (MOJ) and Her Majesty's Revenue and Customs (HMRC) and their respective IT Desktop providers. It combines both the quantitative and qualitative analysis in analysing the survey data and presents the findings and results. It covers the research construct reliability and validity tests, factor analysis, the methodological approach for the statistical analysis and the analysis of the statistical results from the multiple linear regression testing. The section also provides further analysis and output results for the first two objectives of this study which are:

Research Objective One: To investigate and analyse some of the different procurement approaches (transactional or relational) that are adopted within the UK public sector procurement groups so as to determine the extent to which these approaches create added value and protect the erosion of the value already created.

Research Objective Two: To establish how the evaluated approaches should be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements.

The section concludes by examining how best to leverage the most appropriate procurement approach across government and offers up some conclusions on how best to adopt the most optimum procurement approach.

4.2 Construct Reliability and Validity

To ensure the reliability and validity of all constructs used in this study, a multi-scale analysis was conducted by utilising the Cronbach α and the Principal Component Factor Analysis extraction utilising the Promax Rotation Method with Kaiser Normalization.

4.2.1 Cronbach α

The Cronbach α value as identified below in Table 4.1 for each of the multi-item variable for the Government Officials is greater than 0.70 and for the Suppliers a higher proportion of the Cronbach α loaded at greater than 0.70 (except for TC_policy (.691), TTC_communication (0.695), RM_information (0.698), RM_decisions (0.687), RP_benefits (0.67) and RV_discounts (0.66), this is most likely due to the limited number of completed supplier questionnaire responses. Otherwise the construct demonstrates high levels of internal consistency especially on the Government Official data set. This process is similar to those adopted in Liu et al. (2009) and also in Bagozzi and Yi (1988). The combined Government Officials and Supplier construct value also exceeds the 0.70 reliability threshold. Additionally the Cronbach α reliability statistics (Table 4.1) for Government Officials at 0.864, Supplier at 0.722 and the combined aggregate for both Government Officials and Suppliers at 0.842 are all greater than 0.70 and therefore satisfactorily exceeds the 0.70 baseline for construct reliability. Due to the higher number of the combined responses at N = 35, none of the cases considered were excluded during the case processing, Table 4.1 below refers.

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**Case Processing Summary
Buyers**

	N	%
Valid	25	89
Excluded ^a	3	11
Total	28	100

a. Listwise deletion based on all variables in the procedure.

**Case Processing Summary
Sellers**

	N	%
Valid	5	71
Excluded ^a	2	29
Total	7	100

a. Listwise deletion based on all variables in the procedure.

**Case Processing Summary
Combined**

	N	%
Valid	35	100
Excluded ^a	0	0
Total	35	100

a. Listwise deletion based on all variables in the procedure.

**Reliability
Statistics
Buyers**

Cronbach's Alpha	N of Items
0.864	48

**Reliability
Statistics
Sellers**

Cronbach's Alpha	N of Items
0.722	48

**Reliability Statistics
Combined**

Cronbach's Alpha	N of Items
0.842	48

Table 4.1: Summary of Cronbach α analysis for Government Officials, Suppliers and the Combined Construct

4.2.2 Total Variance Explained

Tables 4.2a and 4.2b below presents the output of the total variance explained from the Principal Component Analysis factoring with Promax rotation and Kaiser normalization that was conducted on 48 items. The examination of the initial statistics revealed that 12 factors for the Government Officials and 13 factors for the Suppliers could be extracted with eigenvalues > 1.00 . The 12 factors for Government Officials accounted for 90.5% of the variance whilst the 13 factors for the combined Government Officials and Suppliers construct accounted for 86.3% of the variance.

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Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.486	36.428	36.428	17.486	36.428	36.428
2	5.753	11.985	48.413	5.753	11.985	48.413
3	4.116	8.576	56.989	4.116	8.576	56.989
4	2.913	6.069	63.058	2.913	6.069	63.058
5	2.355	4.907	67.965	2.355	4.907	67.965
6	2.121	4.418	72.384	2.121	4.418	72.384
7	1.921	4.002	76.385	1.921	4.002	76.385
8	1.665	3.470	79.855	1.665	3.470	79.855
9	1.502	3.130	82.985	1.502	3.130	82.985
10	1.379	2.872	85.857	1.379	2.872	85.857
11	1.173	2.443	88.300	1.173	2.443	88.300
12	1.034	2.154	90.454	1.034	2.154	90.454

Extraction Method: Principal Component Analysis.

Table 4.2a: Total Variance Explained Government Officials

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.811	28.772	28.772	13.811	28.772	28.772
2	6.143	12.797	41.569	6.143	12.797	41.569
3	3.399	7.081	48.650	3.399	7.081	48.650
4	3.060	6.375	55.025	3.060	6.375	55.025
5	2.866	5.971	60.996	2.866	5.971	60.996
6	2.370	4.938	65.934	2.370	4.938	65.934
7	1.947	4.056	69.990	1.947	4.056	69.990
8	1.554	3.237	73.228	1.554	3.237	73.228
9	1.442	3.004	76.231	1.442	3.004	76.231
10	1.383	2.881	79.113	1.383	2.881	79.113
11	1.295	2.698	81.810	1.295	2.698	81.810
12	1.123	2.340	84.150	1.123	2.340	84.150
13	1.022	2.130	86.280	1.022	2.130	86.280

Extraction Method: Principal Component Analysis.

Table 4.2b: Total Variance Explained Combined Government Officials and Suppliers

4.2.3 Factor Analysis

An exploratory factor analysis using the promax rotations to ensure high loadings on hypothesised factors in the constructs was conducted. Demonstrably, Table 4.3 below shows significantly higher loadings under the Factor Analysis (Principal Component Analysis utilised in SPSS) for both Government Officials and the Combined Government Officials and Suppliers construct. The lowest factor score for the Government Officials construct was 0.813 and the highest was 0.964, similarly the lowest for the combined construct was 0.764 and the highest was 0.959. This means that the lowest amount of variation being explained in the construct for Government Officials is 81% (TO_savings) and 76% (TTC_costs) respectively for the combined construct. Similarly the largest amount of variations being explained by the construct is 96% (RT_actions) for both Government Officials and (RV_discounts) for the combined construct. These statistical outputs provide highly significant reliability validations for the construct. However the supplier data set did not compute due to the low number of responses. All the items considered loaded onto the expected factors without significant cross-loadings. As the alpha coefficient for all the items measured were 0.72, 0.84 and 0.87 respectively, this thus suggests that these items have relatively high internal consistency.

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S/No	Variable Description	Variable Name	Cronbach's Alpha Buyer	Cronbach's Alpha Sellers	Cronbach's Alpha Combined	Factor Analysis Buyers	Factor Analysis Combined
Q1_a	Our relationship with Officials responsible for Desktop is governed primarily by written contracts	TC_contract	0.868	0.727	0.843	0.951	0.815
Q1_b	We have formal agreements that detail the obligations and rights of both parties	TC_agreements	0.859	0.723	0.838	0.908	0.906
Q1_c	Specific performance measures are specified in written contracts for tracking and measuring performance	TC_performance	0.858	0.723	0.837	0.943	0.923
Q1_d	Penalties and incentives that govern performance are detailed in our Desktop Contracts	TC_penalties	0.857	0.723	0.836	0.922	0.922
Q1_e	Over time we have developed ways of doing things with the IT Desktop Official that never need to be expressed contractually or formally	TC_formal	0.862	0.709	0.845	0.924	0.901
Q1_f	Post contract activities such as the treatment of variation orders reflects the desired changes and are dealt with relatively easily	TC_variation	0.86	0.728	0.839	0.958	0.901
Q1_g	Organisational policy (including the EU procurement regulations) limits all contractual and supplier agreements to both formal and written	TC_policy	0.859	0.691	0.835	0.94	0.903
Q2_a	Officials responsible for IT Desktop sometimes takes advantage on occasions about certain things in order to protect its interests	TO_advantage	0.87	0.756	0.844	0.854	0.893

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Q2_b	Officials responsible for IT Desktop sometimes fails to deliver obligations and other commitments as described in the contract, for its own interests	TO_obligations	0.869	0.736	0.843	0.949	0.917
Q2_c	Officials responsible for IT Desktop sometimes breaches informal agreements between our companies to maximize its own benefits	TO_breach	0.875	0.746	0.849	0.936	0.894
Q2_d	Officials responsible for IT Desktop (sometimes utilises its competitive advantage to appropriate more value from our relationship	TO_advantage	0.866	0.722	0.842	0.915	0.895
Q2_e	Officials responsible for IT Desktop often takes advantage of "loopholes" in our contract to enhance its own interests	TO_loopholes	0.871	0.74	0.847	0.938	0.901
Q2_f	Officials responsible for IT Desktop sometimes retains all the savings generated from the supply chain without passing any on or sharing any of it with other parties in the value chain	TO_savings	0.877	0.724	0.851	0.813	0.846
Q3_a	It takes a long time for negotiations on every agreement or common comprehension to be reached	TTC_negotiations	0.867	0.725	0.839	0.875	0.827
Q3_b	Agreements need several revisions when enforced after being signed	TTC_revisions	0.866	0.733	0.843	0.857	0.796
Q3_c	Contracts are renegotiated and re-signed several times for sophisticated areas and clauses	TTC_renegotiation	0.87	0.761	0.848	0.824	0.796
Q3_d	Information exchange and communication between the contracting parties are open, proactive and aimed at enhancing	TTC_communication	0.857	0.695	0.832	0.95	0.895

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	the knowledge of both parties for the creation of added value						
Q3_e	The Change Management process is clearly detailed, understood and followed prior to the introduction of any desired changes	TTC_change	0.855	0.707	0.829	0.918	0.789
Q3_f	Costs for variation orders, purchase orders, invoice processing, etc. are deemed to be high and could be avoided through longer term partnership agreements	TTC_costs	0.877	0.737	0.848	0.945	0.764
Q4_a	In this relationship, both parties expect that any information that may help the other party will be provided to that party	RM_information	0.86	0.698	0.839	0.931	0.829
Q4_b	In this relationship, ideas or initiatives of both sides are widely shared and welcomed via open communication	RM_ideas	0.853	0.698	0.834	0.923	0.866
Q4_c	In this relationship, problems or conflicts are expected by both parties to be solved through joint consultations and discussions	RM_conflicts	0.859	0.723	0.838	0.914	0.821
Q4_d	In this relationship effective partnership relationships is deemed to be important in creating, delivering and retaining value	RM_partnerships	0.858	0.722	0.837	0.856	0.812
Q4_e	In this relationship, both parties play a healthy role in the other party's decisions via mutual understanding and socialisation	RM_decisions	0.854	0.687	0.837	0.86	0.794
Q4_f	In this relationship joint and co-development (collaboration) is perceived to be important in the delivery of organisational goals, objectives and specific requirements	RM_collaboration	0.854	0.713	0.835	0.876	0.833

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Q4_g	In this relationship, both parties ensures that the best available resources (the 'A-team') are deployed on joint activities	RM_resources	0.856	0.724	0.836	0.921	0.922
Q5_a	We believe in Officials and their representatives because they are sincere	RT_sincerity	0.861	0.725	0.841	0.873	0.890
Q5_b	Though the circumstances change, we believe that Officials and their representatives will be ready and willing to offer us assistance and support	RT_support	0.854	0.739	0.836	0.919	0.845
Q5_c	When making important decisions, Officials and their representatives are concerned about our welfare or interests	RT_concern	0.858	0.706	0.834	0.874	0.868
Q5_d	Honesty and transparency exists in all of our dealings with Officials and their representatives	RT_honesty	0.859	0.705	0.839	0.891	0.892
Q5_e	We can count on Officials and their representatives that future decisions and actions will not adversely affect us	RT_actions	0.859	0.72	0.836	0.964	0.892
Q5_f	When it comes to things that are important to us, we can depend on Government Officials and their representative's support	RT_dependency	0.854	0.721	0.835	0.891	0.910
Q5_g	We believe that Officials and their representatives will protect the security and ensure the continuity of supply	RT_security	0.852	0.728	0.833	0.906	0.841
Q6_a	Leaders of both sides always invite each other to participate in various activities for socialisation	RP_socialisation	0.856	0.71	0.833	0.897	0.801

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Q6_b	Our leaders and the leaders of our partner may call on each other sometimes to resolve recurring issues	RP_issues	0.859	0.715	0.835	0.929	0.882
Q6_c	Our staff and the staff of our partner often communicate with each other to explore opportunities for mutual growth and collaboration	RP_opportunities	0.853	0.722	0.832	0.918	0.842
Q6_d	Our staff and the staff of our partner do personal favours for each other in order to achieve both individual and organisational goals	RP_favours	0.855	0.727	0.835	0.853	0.828
Q6_e	Both Customer and Partners have been involved in the mutually beneficial relationship for a long time	RP_benefits	0.851	0.68	0.831	0.871	0.875
Q6_f	Our staff and the staff of our partners engages in little or no joint activities	RP_joint activities	0.888	0.724	0.86	0.815	0.810
Q7_a	Our relationship with Officials responsible for IT Desktop has provided us with a dominant and profitable market position in our sales/business area	RV_vfm	0.858	0.67	0.837	0.929	0.908
Q7_b	Our relationship with Officials responsible for IT Desktop is very attractive with respect to discounts, innovation and business process improvement	RV_discounts	0.858	0.66	0.834	0.957	0.959
Q7_c	We are very pleased to do business since it generates profitability and value for our business	RV_savings	0.858	0.71	0.836	0.933	0.885
Q7_d	Our relationship allows us to create, share and retain more value from our transactions	RV_retention	0.857	0.702	0.836	0.912	0.881

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Q7_e	Our relationship provides us with high quality support and access for continuous development, revenue generation and value creation	RV_support	0.856	0.718	0.837	0.94	0.848
Q7_f	Our negotiation with responsible for IT Desktop always results in a win/lose (1) mixed (5) or win/win (7) outcome	RV_result	0.857	0.716	0.835	0.867	0.868
Q7_g	Our relationship and investments means that the cost of switching to another source is high	RV_switching	0.876	0.719	0.851	0.864	0.786
Q7_h	In the absence of an initial investment capital (people and money) Officials responsible for IT Desktop are willing to fund the investment and recover the invested costs through cost amortisation over the life of the contract	RV_funding	0.859	0.714	0.837	0.905	0.879
Q7_i	We are very satisfied with the level of service we receive from Officials responsible for IT Desktop	RV_service	0.857	0.715	0.833	0.905	0.862

Table 4.3: Construct reliability and validity.

Note: The questions used in this survey and the derived variables were adapted from Liu et al. (2009: 301-302) in a similar study conducted in China on 'Governing buyer–supplier relationships through transactional and relational mechanisms', supplemented with additional variables from the reviewed literature and output from the pre pilot and pilot study.

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The scree plot in Figure 4.1a and 4.1b graphically displays the eigenvalues for each factor and for the Government Officials and the combined Government Officials and Supplier construct. Both scree plots suggest that there are at least 5 significant factors in each of the constructs.

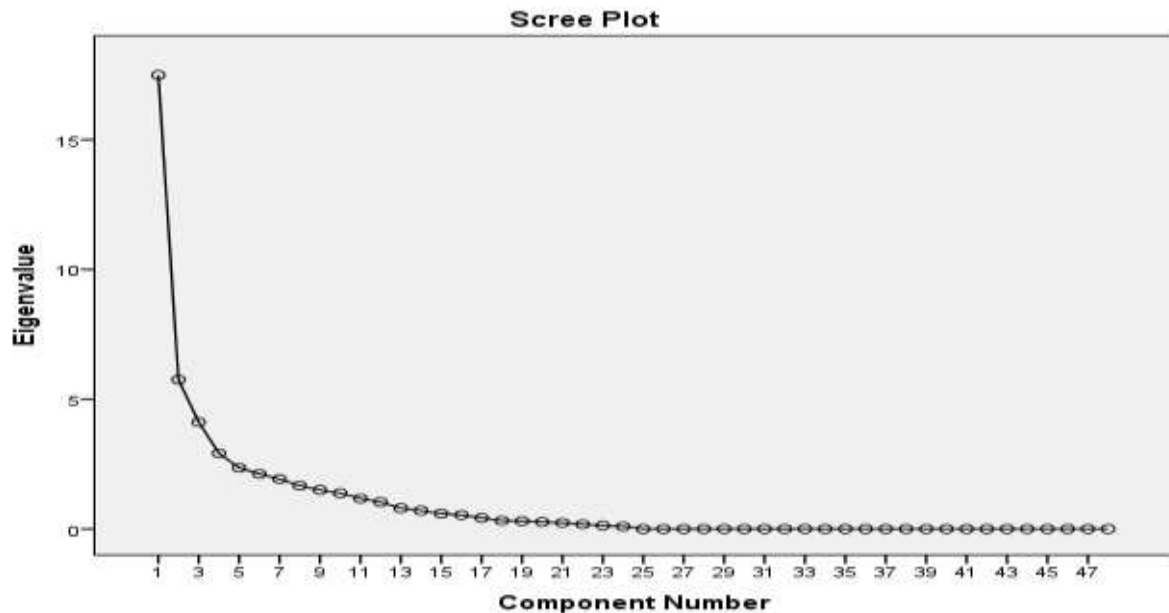


Figure 4.1a: Scree plot – Government Officials

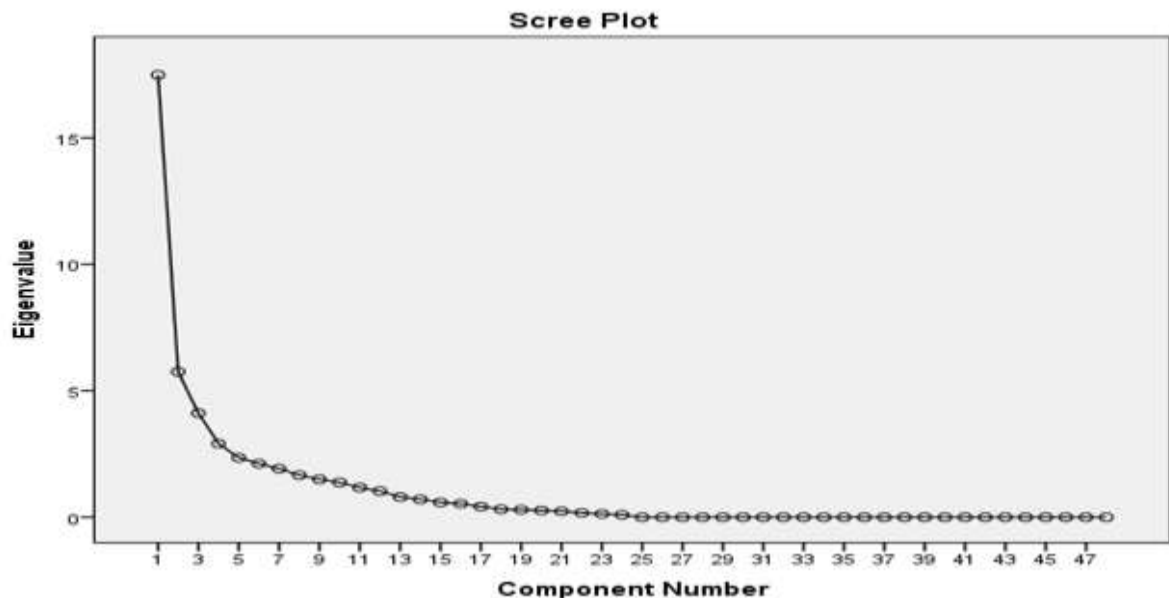


Figure 4.1b: Scree plot – Combined Government Officials and Suppliers

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An oblique rotation such as Promax was deemed to be more appropriate for conducting this analysis. This is primarily because it allows the factors to be correlated with one another unlike orthogonal rotations where the factors are not allowed to be correlated. Promax being a form of an oblique rotation produces both pattern and structure matrices. According to the Annotated SPSS Output Factor Analysis study, (Ats.ucla.edu., 2016), the factor structure matrix represents the correlations between the variables and the factors and is often called the factor loading matrix.

The factor pattern matrix represents the linear combination of the variables. Both the pattern and structure matrices (see Appendix C and D) were produced for this research. However, the pattern matrix as shown in Table 4.4 below will be interpreted further primarily due to the difference between the high and low loadings which were far more pronounced in the pattern matrix. A similar method was adopted in Wan Mahmud et al. 2004.

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Variable	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
RM_information	1.047			-0.32							-0.475	
RT_concern	0.965											
RT_sincerity	0.958							-0.328				
RT_honesty	0.903							0.33				
RT_actions	0.848											
RV_service	0.817											
RM_resources	0.568								-0.335			
RM_decisions	0.552					0.33						
TTC_communication	0.514			0.397								-0.374
RT_dependency	0.46											
TO_savings	-0.394	-0.381								0.327		-0.343
RM_ideas	0.392											
TTC_change		1.041										
TC_performance		0.963										
TC_penalties		0.914						0.343				
RV_funding		0.872				0.583						
TC_agreements		0.829										

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RT_security		0.595										
RT_support		0.473										
RV_discounts			1.025									
RV_savings			0.906									
RV_retention			0.741									
RV_support	0.303		0.716									
RM_conflicts	-0.399		0.58	0.332		0.434	0.305					
RV_vfm		0.404	0.576									
RV_switching				-1.026	0.407							
RP_joint activities				-0.913								
RP_favours				0.778								
RP_socialisation				0.777	0.431							
RM_collaboration				0.639								
RP_opportunities	0.377			0.497								
RM_partnerships				0.436							0.316	
TO_obligations					1.052					-0.303		
TO_loopholes					0.68					-0.387		

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TO_advantage	-0.439				0.655							
TO_advantage		0.372			0.555							
TTC_costs						-0.953						
TTC_revisions							1.024					
TTC_renegotiation						-0.431	0.491	0.343		-0.35		
TC_formal								1.039				
RP_issues				0.628		0.449			0.714			
RV_result				0.428					0.655			
TC_variation		0.379							-0.572		0.301	0.32
TTC_negotiations			-0.323				0.545		0.555			
TO_breach					0.357					-0.908		
RP_benefits		0.328								0.378		
TC_policy		0.348									0.909	
TC_contract			-0.355									0.971

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

Table 4.4: Pattern Matrix^a (Government Officials)

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Table 4.4 above shows that factor 1 comprises of 16 items with factor loadings ranging from -0.30 to 1.05. Factor 2 has 13 items with loadings ranging from -0.38 to 1.04. Factor 3 has 8 items with loadings ranging from -0.32 to 1.03. Factor 4 has 12 items with loadings ranging from -0.32 to -1.03. The 5th factor comprises of 7 items with factor loadings ranging from 0.36 to 1.05. The factor correlation matrix indicates the relationships between these factors (Table 4.6 below) and all factors appear to be moderately correlated.

The factor pattern matrix also provides useful statistical clustering information on how each of the variables clusters around each of the factors. In the Government Officials factor pattern matrix in Table 4.4 for instance, factor 1 shows a clustering of relational and transparency variables. Factor 2 shows a mixed procurement methods (transactional and relational) with a bias towards the formality of agreements and performance. Factor 3 shows relational attributes with value creation and retention variables. Factor 4 shows relational and partnerships variables and finally factor 5 primarily concentrates on the transactional and adversarial type variables. These results indicate that the variables naturally cluster nicely to each of the identified procurement approaches.

4.2.4 Validity

Before analysing the validity statistics, it is important to understand how the strength of a correlation is interpreted. Evans (1996) provided different value ranges in line with their corresponding strengths; this is presented in Table 4.5 below.

Values	Strength
00 – 0.19	Very Weak
0.20 – 0.39	Weak
0.40 – 0.59	Moderate
0.60 – 0.79	Strong
0.80 – 1.00	Very Strong

Table 4.5: Strength of Correlation
Source: Adapted from Evans (1996).

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The component correlations matrix for the Government Officials construct is presented in Table 4.6 below. Component 2 and 1 (0.45), 3 and 1 (0.52), items 3 and 2 (0.47) cluster well and has a moderately positive correlation. Components 7 and 2 (0.44) and 7 and 4 (0.47) also has a moderately positive correlation. Components 5, 8, 9 and 12 have mostly negative correlations with several of the other components. All these correlations were significant at $p < 0.01$. This gives a good indication that a result will be obtained from the construct. It also suggests that there are a number of groups of meaningful variables. Similarly, the component correlations matrix for the combined construct of Government Officials and Suppliers is presented in Table 4.8 below. Component 3 and 1 (.44), 5 and 1 (0.52), 6 and 1 (0.41), items 3 and 2 (0.47) cluster well and has a moderately positive correlation. All these correlations were significant at $p < 0.01$ except for components 10 and 5 (0.003). This gives a good indication that a result will be obtained from the construct. It also suggests that there is at least one group of meaningful variables.

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Component	1	2	3	4	5	6	7	8	9	10	11	12
1	1											
2	0.455	1										
3	0.524	0.468	1									
4	0.55	0.516	0.453	1								
5	-0.343	-0.094	-0.355	-0.117	1							
6	0.222	0.091	0.14	0.186	0.098	1						
7	0.198	0.438	0.151	0.469	0.065	0.238	1					
8	-0.189	-0.041	-0.167	-0.044	0.338	0.02	-0.073	1				
9	-0.334	-0.022	-0.137	-0.255	0.271	-0.128	-0.126	0.272	1			
10	0.181	0.262	0.134	0.215	0.165	0.097	0.226	0.108	0.048	1		
11	0.167	0.09	0.111	0.128	-0.021	0.282	0.045	-0.342	-0.155	0.087	1	
12	0.107	0.205	0.199	-0.006	-0.128	-0.064	0.101	-0.179	-0.119	-0.167	0.105	1

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Table 4.6: Component Correlation Matrix (Government Officials)

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Variables	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
TTC_communication	0.92												
RT_honesty	0.888					-0.332							
RT_concern	0.792							0.36					
RM_resources	0.779							-0.327					0.348
RT_actions	0.751					0.449							
RT_sincerity	0.739									-0.441			
RM_information	0.692											-0.341	
RV_service	0.572			0.326		0.308						-0.355	
RM_ideas	0.44	-0.358								0.333			
RV_support	0.368	-0.332			0.323								
TO_breach		1.006											
TO_obligations		0.991											
TO_loopholes		0.755					-0.346						
TO_advantage		0.728											
TTC_change		0.495	0.389	0.356									
TO_advantage		0.468									0.434	0.316	

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TC_penalties			1.047										
TC_performance			0.985										
TC_agreements			0.928										
RV_discounts				1.075									
RV_vfm				1.023		0.308							
RV_retention				0.717			-0.417						
TC_policy				0.617	-0.344		0.333						0.373
RV_savings				0.44	0.321				0.429				
TTC_renegotiation		0.301		-0.372								0.36	0.319
RM_conflicts					0.87								
RP_joint activities					-0.723			-0.325					
RP_opportunities	0.347	0.317			0.677								
RM_partnerships					0.561					-0.397			
RP_socialisation		0.444			0.5								
RP_favours				-0.303	0.373			0.353			-0.333		
RT_dependency						0.86							
RT_security						0.77					0.326		

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RT_support						0.345							
TC_contract				-0.314			0.996		0.327				
RV_result								0.932	0.365				
RP_issues					0.364			0.813			0.391		
TTC_costs									1.006		-0.403		
RM_decisions								0.383	-0.554				
TTC_negotiations		0.327				-0.315		0.349	0.378			0.363	
TC_formal				0.356						1.06			
RV_funding									-0.431		0.97		
TTC_revisions												0.901	
TO_savings			-0.336				-0.359				0.302	0.374	
RP_benefits										0.314		0.374	
RV_switching				0.333									-0.919
RM_collaboration						0.402							0.425

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

a. Rotation converged in 19 iterations.

Table 4.7: Pattern Matrix^a (Combined – Government Officials and Suppliers)

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Table 4.7 above shows that factor 1 comprises of 11 items with factor loadings ranging from 0.35 to 0.92. Factor 2 has 12 items with loadings ranging from -0.36 to 1.01. Factor 3 has 5 items with loadings ranging from -0.34 to 1.05. Factor 4 has 12 items with loadings ranging from -0.30 to -1.08. The 5th factor comprises of 10 items with factor loadings ranging from 0.34 to 0.87. The factor correlation matrix indicates the relationships between these factors (Table 4.8) and all factors appear to be moderately correlated.

The combined Government Officials and Suppliers factor pattern matrix in Table 4.7 shows factor 1 as clustering around relational and transparency variables similar to the findings in the Government Officials construct in Table 4.4. Factor 2, contrary to the findings in Table 4.4 shows a transactional and formality of contracts type variables. Factor 3 also unlike the findings in Table 4.4 shows transactional attributes with a bias towards penalties and performance. Factor 4 has mixed procurement methods variables with a strong bias for value creation and retention. Finally factor 5 primarily concentrates on the relational type variables with a strong link towards collaboration and partnerships. These results indicate that the variables naturally cluster nicely to each of the identified procurement approaches.

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Component	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1.000												
2	-0.324	1.000											
3	0.437	-0.326	1.000										
4	0.266	-0.104	0.271	1.000									
5	0.515	-0.345	0.371	0.331	1.000								
6	0.405	-0.217	0.281	0.128	0.375	1.000							
7	0.246	-0.105	0.293	0.449	0.265	0.161	1.000						
8	0.226	0.159	0.182	0.335	0.168	0.109	0.218	1.000					
9	-0.143	0.194	0.046	-0.285	-0.177	-0.062	-0.344	-0.32	1.000				
10	-0.068	0.105	-0.154	-0.352	0.003	0.108	-0.163	0.208	0.022	1.000			
11	-0.134	0.337	-0.088	-0.041	-0.092	-0.19	0.022	-0.065	0.325	0.09	1.000		
12	0.021	0.282	0.121	0.058	-0.065	-0.024	0.001	0.45	0.005	0.107	-0.015	1.000	
13	0.187	-0.061	0.321	0.303	0.314	0.112	0.303	0.023	-0.04	-0.303	0.071	0.072	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Table 4.8: Component Correlation Matrix (Combined Government Officials and Suppliers)

4.3 Methodology

Bouchard (1976) indicates that good research is not simply about choosing the right method but more about asking the right questions and utilising the most powerful method for answering the question. With this in mind, this research study based on the scale used in data collection and the questions asked, especially for the quantitative analysis, assumes that there will be a linear relationship between the proposed variables in predicting their effects on value creation. This assumption is predicated on the hypotheses that an increase or decrease in one variable (independent) will lead to a corresponding increase or decrease in the other variable (dependent). In other words any given change in an independent variable will always produce a corresponding change in the dependent variable.

Multiple linear regression modelling analysis was utilised to model and quantify the relationships in the research questionnaire survey and to test the extent to which the variables used (both dependent and independent) correctly predict the identified associations and by implication the assumed hypotheses whilst maintaining the statistical level of significance and the overall significance of the relationship.

There are two parts to the multiple linear regression model - the explained part which is made up of the constant and independent variables and the unexplained part which is made up of the error or residual term. It is expected that the explained part is both high and statistically significant and the unexplained part (the residual component) is low, statistically insignificant and subject to a number of assumptions as set out below:

- That the relationship between the variables employed is Linear;
- That the underlying distribution approximates normality which underpins the modelling (multivariate normality);
- That the degree of multicollinearity or collinearity between the independent variables is not too high;

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- That there is the absence of autocorrelation or serial-correlation in the residual term, meaning that there is no statistically significant pattern or relationship between the elements of the residual term and
- That the variance of the residual term is constant over time (Homoscedasticity) and where this is not the case then the regression model is said to exhibit Heteroscedasticity as such the model estimates are deemed not to be reliable.

Similar themes are discussed in Field (2013:309-312) and Forza (2002).

Each of the key assumptions outlined above are analysed and diagnosed using the summary and diagnostic statistics from the model output with supporting evidence provided in the Appendix. Details of the model output for each of the hypothesis are also discussed further below.

4.4 Model Testing

The following hypotheses were estimated to test the relationships amongst the selected Government Departments' adoption of transactional, relational or mixed procurement methods and the link to value creation and value retention.

HP1) There is a significant and negative link between the use of transactional procurement approaches a) Contract, b) Opportunism, c) Transactional Complexity and Relationship Performance (Value) in the creation and retention of added value.

HP2) There is a significant and positive link between the use of relational procurement approaches a) Relational Norms, b) Trust, c) Personal Relationships and Duration and Relationship Performance (Value).

HP3) There is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined.

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To test these hypotheses, a set of linear regression models of the following type was estimated in SPSS:

$$Y = \alpha_0 + \beta_1 X_1 + \dots + \beta_k X_k + v$$

Where Y is the dependent or response variable and X_1, \dots, X_k are a set of independent or explanatory variables. The β 's are the fixed unknown parameters and v the random variable which represents the error or residuals of the regression model which are assumed to be normally distributed with a mean of 0 and having a variance denoted by σ_v^2 .

4.5 Regression Variables

The Relational Value (RV) variable is the dependent variable and comprises of nine distinct sub variables each starting with the prefix RV where for example value for money is represented by RV_vfm. The remaining Relational Value variables are discounts, savings, retention, support, result, switching, funding and service, as Table 4.9 below shows.

Variable Number	Dependent Variable Name	Dependent Variable Description
1	RV_vfm	Value for Money
2	RV_discounts	Discounts
3	RV_savings	Savings
4	RV_retention	Retention
5	RV_support	Support
6	RV_result	Result
7	RV_switching	Switching
8	RV_funding	Funding
9	RV_service	Service

Table 4.9: List of Dependent Variables (RV - Relational Value)

The Transactional Variables (TC (Transactional Contract), TO (Transactional Opportunism) and TTC (Transactional Complexity)) are three distinct classifications of the independent variables which in turn comprise of the following 19 sub variables which are as follows: contract, agreements, performance, penalties, formal, variation, policy, advantage,

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obligations, breach, advantage, loopholes, savings, negotiations, revisions, renegotiation, communication, change and costs. These variables are presented in Table 4.10 below.

Variable Number	Independent Variable Name	Independent Variable Description
1	TC_contract	Contract
2	TC_agreements	Agreements
3	TC_performance	Performance
4	TC_penalties	Penalties
5	TC_formal	Formal
6	TC_variation	Variation
7	TC_policy	Policy
8	TO_advantage	Advantage
9	TO_obligations	Obligations
10	TO_breach	Breach
11	TO_Comp_advantage	Competitive Advantage
12	TO_loopholes	Loopholes
13	TO_savings	Savings
14	TTC_negotiations	Negotiations
15	TTC_revisions	Revisions
16	TTC_renegotiation	Renegotiation
17	TTC_communication	Communication
18	TTC_change	Change
19	TTC_costs	Costs

Table 4.10: List of Independent Variables (Transactional)

The Relational Variables (RN (Relational Norm), RT (Relational Trust) and RP (Relational Personal Relationship and Duration)) is a further classification of independent variables which is in turn made up of 20 sub variables and these are information, ideas, conflicts, partnerships, decisions, collaboration, resources, sincerity, support, concern, honesty, actions, dependency, security, socialisation, issues, opportunities, favours, benefits and joint activities. These variables are presented in Table 4.11 below.

Variable Number	Independent Variable Name	Independent Variable Description
1	RN_information	Information
2	RN_ideas	Ideas
3	RN_conflicts	Conflicts
4	RN_partnerships	Partnerships
5	RN_decisions	Decisions
6	RN_collaboration	Collaboration
7	RN_resources	Resources
8	RT_sincerity	Sincerity
9	RT_support	Support
10	RT_concern	Concern
11	RT_honesty	Honesty
12	RT_actions	Actions
13	RT_dependency	Dependency
14	RT_security	Security
15	RP_socialisation	Socialisation
16	RP_issues	Issues
17	RP_opportunities	Opportunities
18	RP_favours	Favours
19	RP_benefits	Benefits
20	RP_joint activities	Joint Activities

Table 4.11: List of Independent Variables (Relational)

4.6 Measuring the Model Output

A number of statistics are scrutinised after each regression model is estimated to show how well the model performed and to help in the understanding and quantification of the model fit and the extent of its statistical significance. Each of the key model statistics used in this analysis will therefore be examined in some detail.

4.6.1 Coefficient Interpretation

The coefficient values denoted by the β_i 's in the Multiple Linear Regression model can be interpreted as how much of a unit change in Y will occur for a unit increase in a particular X_k independent or predictor variable, when all of the other variables in the regression model are held constant.

4.6.2 Std Error

Associated with each coefficient estimate is a Standard Error which represents the Standard Deviation of the Regression Coefficient. That is, it represents the value that is expected to be observed if the regression model was estimated many number of times within a set of different datasets assuming the same number of variables.

4.6.3 t-Ratio

This value is the coefficient divided by the standard error, which indicates how large the coefficient is, relative to how much it varies in repeated sampling. If the coefficient varies a lot in repeated sampling, then its t-statistic will be smaller, and if it varies little in repeated sampling, then its t-statistic will be larger.

4.6.4 t-Statistic for Individual Coefficients

The **t-Statistic** or **t-Ratio** is given by coefficient divided by the associated standard error. It provides an indication of the size of the estimated coefficient in relation to its expected size during repeated sampling. The **t-Statistic** can be employed to perform what is known as a **t-test** for an individual coefficient which will establish whether that coefficient is significant given the state of all of the other independent or explanatory variables. Thus, a relatively large **Standard Error** will result in a low **t-Statistic**. It would then be assessed whether the estimated **t-Statistic** is significant at 0.05 or lower by checking the associated **p-value**.

4.6.5 P-value>|t|

This is usually referred to as the **p-value** or **significance level** for the estimated **t-Statistic**. Its interpretation can be used to determine whether the estimated coefficient is statistically different from zero and at what level. Thus, if the **p-value** is equal to for example 0.001, the probability of the estimated statistic actually having a value of zero is 1 in 1000. Statistical convention suggests that a **p-value** that is 0.05 or 0.01, that is 5% which is 5 in 100 and 1% which is 1 in 100, are taken to mean that the coefficient in question is '**statistically significant**'.

4.6.6 Confidence Interval

This is the percentage level of statistical significance that is used to validate a test. The convention is to use a **95% confidence interval** which relates to values that lie within 1.96 standard deviations of the estimated and a **p-value** of 0.05. Thus, if the coefficient or other statistic have a p-value of 0.05 or lower it is said to be significant at 5% level, less than 0.01 is denoted as significant at 1% level.

4.6.7 Coefficient of Determination R^2

This statistic is a measure of the proportion of variation in the dependent variable (Y) that is explained by the model. The remainder is known as the residual or error. The R^2 statistic has a range of between 0 and 1 so that a value of 0.67 means that 67% of the variation in the dependent variable can be explained by variations in the independent variables and constant term in the model. The remaining 33% of the unexplained variations can be explained by the residual or error term.

4.6.8 F-Test of Overall Significance

The **F-Statistic** and **F-Test** is part of the Analysis of Variance or output which measures the overall significance of the Multiple Linear Regression Model. This is effectively testing that all of the slopes or coefficient estimates are statistically significant from zero. To do this a Null Hypothesis H_0 is formulated that all coefficients are zero against an alternative hypothesis H_1 and that all the coefficients are not zero, that is, at least one coefficient is not zero. Thus, the **F-test for Overall Significance** hypotheses statements is as follows:

$$H_0: \beta_1 = \dots = \beta_k = 0 \text{ (That is the } R^2 = 0 \text{)}$$

$$H_1: \beta_1 \neq \dots \neq \beta_k \neq 0 \text{ (At least one of } \beta_k \text{'s is non zero. Thus } R^2 \neq 0 \text{)}$$

From the **ANOVA** output table there is an associated **p-value** for the F-Statistic. If the **p-value** is lower than 0.05 then the **Null Hypothesis** will be rejected, that all of the coefficients are zero in favour of the alternative hypothesis, that is, at least one of the coefficients is significantly different from zero.

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The test for the presence of Heteroscedasticity was conducted using the parsimonious specification of White's test. This effectively tests the Null Hypothesis H_0 : that $d_1 = d_2 = 0$ which implies Homoscedasticity or Constant Variance against the alternative H_1 : that d_1 and or $d_2 \neq 0$ which indicates the presence of Heteroscedasticity or non-constant variance and would imply that a model's estimates are deemed not reliable.

The linear regression's **F-test** has the null hypothesis that there is no linear relationship between the variables (in other words $R^2 = 0$). Where the **F-test** is highly significant, thus it can be assumed that there is a linear relationship between the variables in the model which is more than just chance.

4.6.9 Standardised Coefficients

The Standardised Coefficients are based on the transformation of the dependent and independent variables expressed as the value less its mean all divided by its standard deviation. This means that each variable will then have a mean of zero and standard deviation equal to 1. In standard regression analysis the coefficient of each independent variable relates to the unit measure of that variable, unless they are somehow transformed or standardised. The SPSS regression model output creates the Unstandardised (referred to as B coefficients) and Standardised (referred to as Beta coefficients). Thus the expected value of the dependent variable is measured in units of Standard Deviation for each standard deviation change in the independent variable(s). As each independent variable is transformed in this way the absolute value of each standardised coefficient indicates the impact on the dependent variable. This can provide useful information which supports the relative impact of each independent variable in multiple regression analysis. It can also make the relative impact assessment for each independent variable on the dependent variable easier, namely the larger the size of the coefficient the strong is the impact. It removes the unit of measure impact of each variable and is subject to variability due to non-normal distribution effects such as skew and stationarity.

4.7 Multiple Linear Regression Result for Transactional and Relational Variables

This linear regression estimation model and hypotheses is testing the transactional and relational procurement approaches as individual components in the creation and retention of value. The transactional component of the model captures the following independent variables - Contract, Opportunism and Transactional Complexity as a function of transactional procurement approach with Relationship Performance (Value) as the dependent variable. This estimated model also picks up the relational procurement approach and captures the following independent variables - Relational Norms, Trust, Personal Relationships and Duration with Relationship Performance (Value) as the dependent variable.

The following estimated linear regression model picks up the following hypotheses (HP1 and HP2) for transactional and relational procurement approaches respectively:

HP1) There is a significant and negative link between the use of transactional procurement approaches a) Contract, b) Opportunism, c) Transactional Complexity and Relationship Performance (Value) in the creation and retention of added value and

HP2) There is a significant and positive link between the use of relational procurement approaches a) Relational Norms, b) Trust, c) Personal Relationships and Duration and Relationship Performance (Value).

The Estimated Model for HP1 and HP2 is as follows:

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + v$$

where Y is Total Relational Value (total of RV's as shown in Table 4.8 above), X_1 is Total Govt Dept for Transactional, X_2 Total Govt Dept for Relational and v the residual error term

The descriptive statistics below provides a summary of the combined variables considered for the regression for all the Government Departments that are in scope of this study, the

table also reports on the Pearson correlation coefficients for the combined variables used in the regression analysis.

4.7.1 Descriptive Statistics for Transactional and Relational Variables

The Pearson's r for the correlation between the Dependent Variable (Total of 9 RV Class Variables) and Independent Variable (Total_Govt_Dept_Trans) i.e. transactional procurement method as a predictor of value is -0.235, although this suggests a weak relationship between the two variables, it none the less demonstrates that as Transactional Procurement methods increases, the dependent Value variable decreases. This indicates a negative correlation between Transactional Procurement methods and value creation and retention. It also provides partial support for Hypothesis 1 (**HP1**) that there is a negative link between the use of transactional procurement approaches a) Contract, b) Opportunism, c) Transactional Complexity and Relationship Performance (Value) in the creation and retention of added value.

Conversely the Pearson's r for the correlation between the Dependent Variable (Total of 9 RV Class Variables) and the other Independent Variable (Total_Govt_Dept_Rel) i.e. Relational Procurement methods as a predictor of value is 0.222, although this suggests a weak relationship between the two variables, it none the less demonstrates that as Relational Procurement methods increases, the dependent Value variable also increases. This indicates a positive correlation between Relational Procurement methods and value creation and retention. It also provides partial support for Hypothesis 2 (**HP2**) that there is a positive link between the use of relational procurement approaches a) Relational Norms, b) Trust, c) Personal Relationships and Duration and Relationship Performance (Value). Details of related descriptive statistics are presented in Table 4.12 below.

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	Variables	Variable Type	Mean	Std. Deviation	1	2	3
1	Total of 9 RV Class Variables	Independent	42.857	7.9304	1		
2	Total_Govt_Dept_Tran	Dependent	91.143	20.8131	-0.235	1	.
3	Total_Govt_Dept_Rel	Dependent	90.429	22.7548	0.222	0.5 **	1

* Correlation is significant at the 0.05 level (one-tailed).

** Correlation is significant at the 0.01 level (one-tailed).

Table 4.12: Descriptive Statistics and Pearson's Correlation Matrix (N = 35)

The ANOVA output for this analysis suggests that the regression equation is a significant predictor of the dependent variable which is value creation and retention, Table 4.13 below indicates a significant *F* value of 4.232 (significant at the 5% level), this shows that the regression equation is significant which means that the null hypothesis can be rejected that all the predictor coefficients are zero.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	447.249	2	223.625	4.232	.023 ^b
Residual	1691.036	32	52.845		
Total	2138.286	34			

a. Dependent Variable: Total of 9 RV Variables

b. Predictors: (Constant), Total_Govt_Dept_Rel, Total_Govt_Dept_Tran

Table 4.13: ANOVA for Transactional and Relational Variables

Table 4.14 below presents the multiple linear regression model for Transactional and Relational variables for Government Departments, the intercept and the significance levels. The two independent variables – Total Government Department Transactional variable is 0.016 and significant at the 5% level and the Relational variable is 0.018 and significant at the 5% level. Both variables are therefore statistically significant, however given the low adjusted r-squared as detailed in Table 4.15, more than 80% of the variance cannot be explained by the model relationship.

The Total Government Department Transactional variable β coefficient is $\beta = -0.176$ at the 5% significance level. So for every unit increase in the Total Transactional variable, a -0.18

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unit decrease in Value is predicted, all other variables remaining constant. This result indicates that the Total Government Department Transactional variable has a significant and negative value creation and retention which therefore lends support to hypothesis 1 (HP1).

The Total Government Department Relational variable β coefficient is $\beta = 0.158$ at the 5% significance level. So for every unit increase in the Total Relational variable, a 0.16 unit increase in Value is predicted, with all other variables remaining constant. The effect of the Government Department Relational variable on value creation and retention is both significant and positive and thus supports hypothesis 2 (HP2).

The standardised coefficients are based on standardising the data so that the variance of both dependent and independent variable is equal to 1. The estimate for the Total Government Department Transactional variable is -0.462 which is the standard deviation change in the dependent variable for each standard deviation increase in the Total Government Department Transactional variable.

Similarly, the standardised coefficient for Total Government Department Relational variable is 0.453 which is the number of standard deviations increase in the dependent variable for each standard deviation change in the independent variable - Total Government Department Relational. Thus the impact of the two independent variables on the dependent variable is similar in magnitude but in different directions.

The standard error associated with each coefficient contributes to the overall uncertainty of the value of the coefficient. Thus the lower and upper 95% confidence level varies in range largely due to the magnitude of the standard error.

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Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	β	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant) (α ₀)	44.622	6.158		7.246	.000	32.078	57.166					
Total_Govt_Dept_Trans (β ₁ X ₁)	-.176	.069	-.462	-2.543	.016	-.317	-.035	-.235	-.410	-.400	.750	1.333
Total_Govt_Dept_Rel (β ₂ X ₂)	.158	.063	.453	2.494	.018	.029	.287	.222	.403	.392	.750	1.333

a. Dependent Variable: Total of 9 RV Variables

Table 4.14: Coefficients for Transactional and Relational Variables

The check for multicollinearity in the multiple linear regression model shows that the tolerance is > 0.1 and the VIF is < 10 for both variables. This indicates that there is no multicollinearity and therefore all the variables can be retained.

Table 4.15 below shows the multiple linear regression model summary and overall fit statistics. The regression model shows that the adjusted R^2 is 0.160. The adjusted R^2 output indicates that the linear regression explains 16% of the variance in the data used. The Durbin-Watson d value is 1.622, as this is between the two critical values of $1.5 < d < 2.5$ it can therefore be safely assumed that there is no first order linear auto-correlation in the multiple linear regression data.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.457 ^a	.209	.160	7.26945	.209	4.232	2	32	.023	1.622

a. Predictors: (Constant), Total_Govt_Dept_Rel, Total_Govt_Dept_Trans

b. Dependent Variable: Total of 9 RV Variables

Table 4.15: Model Summary for Transactional and Relational Variables

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The F-Statistic and F-Test measures the overall significance of the Multiple Linear Regression Model. This essentially tests that all of the slopes or coefficient estimates are statistically significant from zero. This is done by formulating a Null Hypothesis that all coefficients are zero against an alternative hypothesis that all the coefficients are not zero, that is, at least one coefficient is not zero.

See Appendix E for the Summary and Diagnostic Statistics for Model 1: Transactional and Relational Variables including histogram, normal p-p plot of regression standardised residual, scatterplots, and partial regression plot. The histogram and normal p-p plot of regression standardised residual provides a visual inspection of the extent to which the residuals are normally distributed. It also provides a statistical estimate by way of a normality test to confirm and validate this. The scatter plots and partial regression plots provides a visual inspection of the extent to which there is heteroscedasticity or non-constant variant in the predicted residual.

The test for normality (see Appendix E (3) of both Unstandardised and Standardised Residuals using Kolmogorov-Smirnov and Shapiro-Wilk tests have p-values of 0.200 and 0.890 respectively. These values are both not statistically significant at the 5% significance level. This means that the Null Hypothesis of normality for Model 1 (Transactional and Relational Variables) can be accepted.

White's test for Heteroscedasticity which utilised the functional form was further employed to test that the variance of the residual term is constant over time:

$$v^{p2} = \delta_0 + \delta_1 Y^p + \delta_2 Y^{p2} + \varepsilon_t$$

This specification of White's Test for Heteroscedasticity uses fewer regression variables in assessing the impact of heteroscedasticity and so results in higher degrees of freedom (number of observations less the number of parameters) which help the statistical test. From model 1 (the Transactional and Relational variables) v^{p2} is the squared predicted residuals,

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Y^p the predicted dependent variable and Y^{p2} the predicted dependent variable squared. The result in Appendix E (4) shows that the resulting F-value is 0.946 and the associated P-value is 0.399 which is not significant at the 5% significance level. This means that the null hypothesis of homoscedasticity cannot be rejected. In other words, model 1 exhibits strong evidence of constant variance in the residuals over time.

4.8 Multiple Linear Regression Result for the Combined Relational and Transactional Variable

The estimated linear regression model below and the linked hypothesis estimate the effect of the combined relational and transactional procurement approach on value creation and retention. The model captures the following independent variables (Relational Variables) - Relational Norms, Trust, Personal Relationships and Duration, it also includes the following Transactional Variables - Contract, Opportunism and Transactional with Relationship Performance (Value) as the dependent variable.

The following estimated linear regression model picks up hypothesis HP3 for the combined relational and transactional procurement approach.

HP3) There is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined.

The Estimated Model for the combined relational and transactional procurement approach is as follows:

$$Y = \alpha_0 + \beta_3 X_3 + \varpi$$

where Y is Total Relational Value (total of RV's shown in Table 4.8 above), X_3 is Total all Relational and Transactional and ϖ the residual error term.

The descriptive statistics shown below in Table 4.8 provides a summary of the combined variables considered for the regression for all the Government Departments that are in

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scope of this study, the table also reports the Pearson correlation coefficients for the combined variables used in the regression analysis.

4.8.1 Descriptive Statistics for the Combined Relational and Transactional Variable

The Pearson's r for the correlation between the Dependent Variable (Total of 9 RV Class Variables) and the combined Transactional and Relational Independent Variable (Sum of all Relational and Transactional) i.e. combined Transactional and Relational Procurement methods as a predictor of value is 0.470**, this suggests a strong relationship between the two variables and a significant relationship at the 1% significance level. It demonstrates that as the combined Transactional and Relational Procurement methods increase, the dependent Value variable also increases. This indicates a significant and positive correlation between the combined Transactional and Relational Procurement methods and value creation and retention. It also provides support for Hypothesis 3 (**HP3**) that there is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined. Details of related descriptive statistics are presented in Table 4.16 below.

	Variables	Variable Type	Mean	Std. Deviation	1	2
1	Total of 9 RV Variables	Dependent	42.857	7.9304	1	
2	Sum of all Relational and Transactional	Independent	187.8571	21.38463	.470**	1

* Correlation is significant at the 0.05 level (one-tailed).

** Correlation is significant at the 0.01 level (one-tailed).

Table 4.16: Descriptive Statistics and Pearson's Correlation Matrix (N = 35)

The ANOVA output below in Table 4.17 suggests that the regression equation is a significant predictor of the dependent variable which is value creation and retention with a significant F value of 9.377. It also shows that the regression equation is significant which means that the null hypothesis can be rejected that all the predictor coefficients are zero.

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ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	473.139	1	473.139	9.377	.004 ^b
	Residual	1665.147	33	50.459		
	Total	2138.286	34			

a. Dependent Variable: Total of 9 RV Variables

b. Predictors: (Constant), Sum of all Relational and Transactional

Table 4.17: ANOVA for the Combined Relational and Transactional Variable

Table 4.18 below presents the combined relational and transactional variable β coefficient of $\beta = 0.174$ at the 5% significance level, this is deemed to be significant. So for every unit increase in the combined transactional and relational variable there is a prediction of a corresponding 0.17 unit increase in Value, all other variables remaining constant. This result indicates that the combined relational and transactional variable has a significant and positive value creation and retention effect which therefore lends support to hypothesis 3 (HP3). The effect is slightly higher than the results posted for HP1 ($\beta = -0.176$ at the 5% significance level) and HP2 ($\beta = 0.158$ at the 5% significance level) in the earlier model illustrated above. However given the low adjusted r-squared as detailed in Table 4.19, more than 80% of the variance cannot be explained by the model relationship.

The standardised coefficient for the combined relational and transactional variable in Table 4.17 below is 0.470.

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Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant) (α_0)	10.087	10.769		.937	.356	-11.823	31.996					
Sum of all Relational and Transactional ($\beta_3 X_3$)	.174	.057	.470	3.062	.004	.059	.290	.470	.470	.470	1.000	1.000

a. Dependent Variable: Total of 9 RV Variables

Table 4.18: Coefficients for the Combined Relational and Transactional Variable

The check for multicollinearity in the multiple linear regression model used shows that the tolerance is > 0.1 and the VIF is < 10 for both variables. This indicates that there is no multicollinearity and therefore all the variables can be retained.

Table 4.19 below shows the multiple linear regression model summary and overall fit statistics for the Combined Relational and Transactional Variables. The regression model shows that the adjusted R^2 is 0.198. The adjusted R^2 output indicates that the linear regression explains 19.8% of the variance in the data used. The Durbin-Watson d is 1.606, as this is between the two critical values of $1.5 < d < 2.5$ it can therefore be safely assumed that there is no first order linear auto-correlation in the multiple linear regression data.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.470 ^a	.221	.198	7.10345	.221	9.377	1	33	.004	1.606

a. Predictors: (Constant), Sum of all Relational and Transactional

b. Dependent Variable: Total of 9 RV Variables

Table 4.19: Model Summary for the Combined Relational and Transactional Variable

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See Appendix F for the Summary and Diagnostic Statistics for Model 2: Combined Relational and Transactional Variable including histogram, normal p-p plot of regression standardized residual, scatterplots, and partial regression plot. The histogram and normal p-p plot of regression standardised residual provides a visual inspection of the extent to which the residuals are normally distributed. It also provides a statistical estimate by way of a normality test to confirm and validate this. The scatter plots and partial regression plots provides a visual inspection of the extent to which there is heteroscedasticity or non-constant variant in the predicted residual.

The test for normality (see Appendix F (3) of both Unstandardised and Standardised Residuals using Kolmogorov-Smirnov and Shapiro-Wilk tests have p-values of 0.142 and 0.436 respectively which are both not statistically significant at the 5% significance level. This means that for Model 2 (the Combined Relational and Transactional Variable) the Null Hypothesis of normality can be accepted.

White's test for Heteroscedasticity which utilised the functional form was further employed to test that the variance of the residual term is constant over time:

$$\hat{\omega}^{p2} = \delta_0 + \delta_1 Y^p + \delta_2 Y^{p2} + \varepsilon_t$$

This specification of White's Test for Heteroscedasticity uses fewer regression variables in assessing the impact of heteroscedasticity and so results in higher degrees of freedom (number of observations less the number of parameters) which help the statistical test. From model 2 (the Combined Relational and Transactional Variable) $\hat{\omega}^{p2}$ is the squared predicted residuals, Y^p the predicted dependent variable and Y^{p2} the predicted dependent variable squared. The result in Appendix F (4) shows that the resulting F-value is 0.416 and the associated P-value is 0.663 which is not significant at the 5% significance level. This means that the null hypothesis of homoscedasticity for Model 2 cannot be rejected. In other words, model 2 exhibits strong evidence of constant variance in the residuals over time.

4.9 Multiple Linear Regression Result for Transactional, Relational and the Combined Relational and Transactional Variables

The estimated linear regression model below and the linked hypotheses estimate the effect of the transactional, relational and combined relational and transactional procurement approaches on value creation and retention. The model captures the following independent variables (Relational Variables) - Relational Norms, Trust, Personal Relationships and Duration, it also includes the following Transactional Variables - Contract, Opportunism and Transactional with Relationship Performance (Value) as the dependent variable.

The following estimated linear regression model picks up the following hypotheses (HP1, HP2 and HP3) for transactional, relational procurement and the combined relational and transactional procurement approaches respectively.

HP1) There is a significant and negative link between the use of transactional procurement approaches a) Contract, b) Opportunism, c) Transactional Complexity and Relationship Performance (Value) in the creation and retention of added value.

HP2) There is a significant and positive link between the use of relational procurement approaches a) Relational Norms, b) Trust, c) Personal Relationships and Duration and Relationship Performance (Value).

HP3) There is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined.

The Estimated Model for the transactional, relational procurement and the combined relational and transactional procurement approaches is as follows:

The Estimated Model

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \psi$$

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where Y is Total Relational Value (total of RV's in Table 4.8 above), x_1 is Total Govt Dept for Transactional, x_2 Total Govt Dept for Relational, x_3 is Total all Relational and Transactional and ψ the residual error term

The descriptive statistics below in Table 4.20 provides a summary of the combined variables considered for the regression for all the Government Departments that are in scope of this study. The table also reports the Pearson correlation coefficients for the combined variables used in the regression analysis. The descriptive statistics and all the associated multiple linear regression model outputs models the Total 9 RVs (Relational Value) as the dependent variable and has as the independent variable the Total Government Department Transactional, the Total Government Department Relational and the Sum of all Relational and Transactional variables.

4.9.1 Descriptive Statistics for Transactional, Relational and the Combined Relational and Transactional Variables

The Pearson's r for the correlation between the Transactional procurement methods and Value is -0.235. This indicates a weak but negative correlation between Transactional procurement methods and value creation and retention. It also provides partial support for Hypothesis 1 (**HP1**) that there is a negative link between the use of transactional procurement approach in the creation and retention of added value. It indicates that there is a weak relationship between the two variables and that as Transactional Procurement methods increases, the dependent Value variable decreases. Conversely the Pearson's r for the correlation between the Relational Procurement approach and Value is 0.222. This indicates a weak but positive correlation between Relational Procurement methods and value creation and retention. It also provides partial support for Hypothesis 2 (**HP2**) that there is a positive link between the use of relational procurement approach in the creation and retention of added value

The Pearson's r for the correlation between the dependent Variable Value and the combined Transactional and Relational Dependent Variable is 0.470**. This suggests that there is a

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strong relationship between the two variables and a significant relationship at the 1% significance level. It demonstrates that as the combined Transactional and Relational Procurement methods increases, the dependent Value variable also increases. It shows that there is a significant and positive correlation between the combined Transactional and Relational Procurement approach and value creation and retention. It also provides support for Hypothesis 3 (**HP3**) that there is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined. Details of related descriptive statistics are presented in Table 4.20 below.

	Variables	Mean	Std. Deviation	1	2	3	4
1	Total of 9 RV Variables	42.857	7.9304	1			
2	Total_Govt_Dept_Tran	91.143	20.8131	-0.235	1		
3	Total_Govt_Dept_Rel	90.429	22.7548	0.222	0.5**	1	
4	Sum of all Relational and Transactional	187.857	21.3846	0.470**	0.180	0.348*	1

* Correlation is significant at the 0.05 level (one-tailed).

** Correlation is significant at the 0.01 level (one-tailed).

Table 4.20: Descriptive Statistics and Pearson's Correlation Matrix (N = 35)

The ANOVA output for this analysis suggests that the regression equation is a significant predictor of the dependent variable which is value creation and retention, Table 4.21 below indicates a significant *F* value of 6.539, this shows that the regression equation is significant which means that the null hypothesis can be rejected that all the predictor coefficients are zero.

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	828.679	3	276.226	6.539	.001 ^b
Residual	1309.607	31	42.245		
Total	2138.286	34			

a. Dependent Variable: Total of 9 RV Variables

b. Predictors: (Constant), Sum of all Relational and Transactional, Total Govt Dept for Transactional, Total Govt Dept for Relational

Table 4.21: ANOVA for Transactional, Relational and the Combined Relational and Transactional Variables

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Table 4.22 below shows the multiple linear regression model, the intercept and the significance levels. Two of the three independent variables – Total Government Department Transactional is significant at the 5% significance level and Total Government Department Relational is significant at the 10% significance level. The combined Relational and Transactional variable is significant at the 5% significance level. In summary two of the three independent variables are significant at the 5% level and the other variable is significant at the 10% level. However, given the low adjusted r-squared as detailed in Table 4.23, more than 77% of the variance cannot be explained by the model relationship.

The respective β coefficients are as follows:

- Total Government Department Transactional is $\beta = -0.177$ at the 5% significance level, this indicates that for every unit increase in Total Transactional, a -0.18 unit decrease in Value is predicted, all other variables remaining constant. This result provides further support of hypothesis 1 (HP1) that there is a significant and negative link between the use of transactional procurement approaches and value creation and retention.
- Total Government Department Relational is $\beta = 0.104$ at the 10% significance level, meaning that for every unit increase in Total Government Department Relational, there is a prediction of .10 unit increase in Value with all other variables remaining constant. This effect lends support to hypothesis 2 (HP2) that there is a significant and positive link between the use of relational procurement approaches and value creation and retention.
- Combined Relational and Transactional is $\beta = 0.167$ at the 5% significance level, this shows that for every unit increase in the combined Relational and Transactional variable, there is a predicted 0.17 unit increase in Value with all other variables remaining constant. This result demonstrates support for hypothesis 3 that there is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined.

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The standardised coefficient for Total Government Department Transactional variable is - 0.465 and for Department Relational it is 0.298 for the combined Relational and Transactional variable is 0.450. This shows that of the three independent variables Total Government Department Transactional has the larger impact on the dependent variable, followed by Relational and Transactional with Department Relational having the lowest impact of the three.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant) (α_0)	18.246	10.362		1.761	.088	-2.888	39.379					
Total Govt Dept for Transactional ($\beta_1 X_1$)	-.177	.062	-.465	-2.867	.007	-.303	-.051	-.235	-.458	-.403	.750	1.333
Total Govt Dept for Relational ($\beta_2 X_2$)	.104	.059	.298	1.749	.090	-.017	.225	.222	.300	.246	.682	1.467
Sum of all Relational and Transactional ($\beta_3 X_3$)	.167	.056	.450	3.005	.005	.054	.280	.470	.475	.422	.879	1.138

a. Dependent Variable: Total of 9 RV Variables

Table 4.22: Coefficients for Transactional, Relational and the Combined Relational and Transactional Variables

The check for multicollinearity in the multiple linear regression model used shows that the tolerance is > 0.1 and the VIF is < 10 for both variables. This indicates that there is no multicollinearity and therefore all the variables can be retained.

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Table 4.23 below shows the multiple linear regression model summary and overall fit statistics. The regression model shows that the adjusted R^2 is 0.328. The adjusted R^2 output indicates that the linear regression explains 32.8% of the variance in the data used. The Durbin-Watson d value is 1.485 and as this is outside the two critical values of $1.5 < d < 2.5$ it can therefore be safely assumed that there is no evidence of first order linear auto-correlation in the multiple linear regression data.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.623 ^a	.388	.328	6.49965	.388	6.539	3	31	.001	1.485

a. Predictors: (Constant), Sum of all Relational and Transactional, Total Govt Dept for Transactional, Total Govt Dept for Relational

b. Dependent Variable: Total of 9 RV Variables

Table 4.23: Model Summary for Transactional, Relational and the Combined Relational and Transactional Variables

See Appendix G for Summary and Diagnostic Statistics for Model 3: Transactional, Relational and the Combined Relational and Transactional Variables including histogram, normal p-p plot of regression standardized residual, scatterplots, and partial regression plot. The histogram and normal p-p plot of regression standardised residual provides a visual inspection of the extent to which the residuals are normally distributed. It also provides a statistical estimate by way of a normality test to confirm and validate this. The scatter plots and partial regression plots provides a visual inspection of the extent to which there is heteroscedasticity or non-constant variant in the predicted residual.

The test for normality (see Appendix G (3) of both Unstandardised and Standardised Residuals using Kolmogorov-Smirnov and Shapiro-Wilk tests have p-values of 0.200 and 0.981 respectively which are both not statistically significant at the 5% significance level. This means that the Null Hypothesis of normality can be accepted.

White's test for Heteroscedasticity which utilised the functional form was further employed to test that the variance of the residual term is constant over time:

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$$\psi^{p2} = \delta_0 + \delta_1 Y^p + \delta_2 Y^{p2} + \varepsilon_t$$

This specification of White's Test for Heteroscedasticity uses fewer regression variables in assessing the impact of heteroscedasticity and so results in higher degrees of freedom (number of observations less the number of parameters) which help the statistical test. From model 3 (Transactional, Relational and the Combined Relational and Transactional Variables) ψ^{p2} is the squared predicted residuals, Y^p the predicted dependent variable and Y^{p2} the predicted dependent variable squared. The result in Appendix G (4) shows that the resulting F-value is 0.411 and the associated P-value is 0.666 which is not significant at the 5% significance level. This means that the null hypothesis of homoscedasticity cannot be rejected. In other words, model 3 (the Transactional, Relational and the Combined Relational and Transactional Variables) exhibits strong evidence of constant variance in the residuals over time.

4.10 Summary of Findings and Results

Tables 4.24, 4.25 and 4.26 below provide a summary of the findings and results across the three models. They also illustrates that all 3 hypotheses were supported by the analysis.

Summary of hypotheses and results for Model 1

The equation for model 3 is as follows:

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \upsilon$$

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Hypotheses	Results
HP1 There is a significant and negative link between the use of transactional procurement approaches a) Contract, b) Opportunism, c) Transactional Complexity and Relationship Performance (Value) in the creation and retention of added value.	Supported Total Government Department Transactional has a β value of -0.176 at the 5% significance level. This indicates that for every unit increase in Total Transactional, a -0.18 unit decrease in value is predicted, all other variables remaining constant. However only 16% of the model variance is explained, this could be as a result of the small sample size, model specification, measurement and sampling errors.
HP2) There is a significant and positive link between the use of relational procurement approaches a) Relational Norms, b) Trust, c) Personal Relationships and Duration and Relationship Performance (Value).	Supported Total Government Department Relational has a β value of 0.158 at the 5% significance level. This indicates that for every unit increase in Total Government Department Relational, there is a prediction of 0.16 unit increase in Value with all other variables remaining constant. However only 16% of the model variance is explained, this could be as a result of the small sample size, model specification, measurement and sampling errors.

Table 4.24: Summary of Hypotheses and Results for Model 1

Summary of hypotheses and results for Model 2

The equation for model 2 is as follows:

$$Y = \alpha_0 + \beta_3 X_3 + \varpi$$

Hypotheses	Results
HP3) There is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined.	Supported Combined Relational and Transactional has a β value of 0.174 at the 5% significance level. This shows that for every unit increase in the combined Relational and Transactional variable, there is a predicted 0.17 unit increase in Value with all other variables remaining constant. However only 20% of the model variance is explained, this could be as a result of the small sample size, model specification, measurement and sampling errors.

Table 4.25: Summary of Hypotheses and Results for Model 2

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Summary of hypotheses and results for Model 3

The equation for model 3 is as follows:

$$Y = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \psi$$

Hypotheses	Results
<p>HP1</p> <p>There is a significant and negative link between the use of transactional procurement approaches a) Contract, b) Opportunism, c) Transactional Complexity and Relationship Performance (Value) in the creation and retention of added value.</p>	<p>Supported</p> <p>Total Government Department Transactional has a β value of -0.177 at the 5% significance level. This indicates that for every unit increase in Total Transactional, a -0.18 unit decrease in value is predicted, all other variables remaining constant. However only 33% of the model variance is explained, this could be as a result of the small sample size, model specification, measurement and sampling errors.</p>
<p>HP2)</p> <p>There is a significant and positive link between the use of relational procurement approaches a) Relational Norms, b) Trust, c) Personal Relationships and Duration and Relationship Performance (Value).</p>	<p>Supported</p> <p>Total Government Department Relational has a β value of 0.104 at the 5% significance level. This indicates that for every unit increase in Total Government Department Relational, there is a prediction of 0.10 unit increase in Value with all other variables remaining constant. However only 33% of the model variance is explained, this could be as a result of the small sample size, model specification, measurement and sampling errors.</p>
<p>HP3)</p> <p>There is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined.</p>	<p>Supported</p> <p>Combined Relational and Transactional has a β value of 0.167 at the 10% significance level. This shows that for every unit increase in the combined Relational and Transactional variable, there is a predicted 0.17 unit increase in Value with all other variables remaining constant. However only 33% of the model variance is explained, this could be as a result of the small sample size, model specification, measurement and sampling errors.</p>

Table 4.26: Summary of Hypotheses and Results for Model 3

These summary findings provides the following 3 major findings in support of the study's research objective 1 which is to investigate and analyse some of the different procurement

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approaches (transactional or relational) that are adopted within the UK public sector procurement groups so as to determine the extent to which these approaches create added value and protect the erosion of the value already created.

The first major finding is that the use of transactional procurement approaches which incorporates contract, opportunism and transactional complexity delivers less (negative) value when compared to the other procurement approaches that were considered. This finding demonstrates the relevance of transaction cost theory which provides evidence that formal contract tends to emphasise control and legal rules that could signal distrust amongst members which could lead to opportunism (John, 1984). Similarly transaction cost economics has in previous studies identified contracts as a mechanism for promoting individual party's private gains (Cannon et al., 2000 and Poppo and Zenger, 2002).

However, there are other competing views of the effect of transaction cost economics on value creation. Dahlstrom and Nygaard (1999) and Williamson (1985) suggest that drafting a detailed contract for example could reduce opportunism and therefore increase value. Whilst this might be possible in the short term, over time, rigidly sticking with the contractual provisions will limit the possibilities of jointly developing and implementing innovative solutions except as prescribed within the contracts between the two parties. Similarly, the findings in a study of Governing buyer–supplier relationships through transactional and relational mechanisms: Evidence from China, revealed that a “contract improves relationship performance for both parties” (Liu et al., 2009: 300). The Liu et al. (2009) study in China appears to contradict the findings in this research by indicating that transactional methods can improve relationship performance by both parties, this could be attributable to cultural differences between China and the United Kingdom.

The second major finding is that the use of relational procurement approaches such as relational norms, trust, personal relationships and duration will deliver better (positive) value. This finding empirically validates the relational theoretical proposition which suggests that

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trust and norms has the possibility of restraining parties from acting opportunistically and out of self-interest, (Brown et al., 2000 and Wathne and Heide, 2000).

The third major and significant finding in this study is that there is a significant and positive joint effect on the creation and retention of added value when transactional (contract, opportunism and transactional complexity) and relational (relational norms, trust, personal relationships and duration) procurement approaches are combined. Similar conclusions were reached in Liu et al. (2009) where their findings concluded that “formal governance system (e.g., contracts and investments) and the informal governance system (e.g., trust and norms) function as complements, rather than substitutes, in generating higher exchange performance” (Liu et al., 2009: 306). Similar conclusions are also contained in Luo (2002) and Poppo and Zenger (2002).

However, Wuyts and Geyskens (2005) contends that the combined effect of both formal (transactional) and informal (relational) approaches may be less effective compared to when used separately depending on the contextual environment where the approach is applied. Furthermore, Liu et al., in their study posits that “formal (transactional) and informal (relational) governance systems mutually redress each other’s deficiency and reinforce each other’s particular function when they come into play together” (Liu et al., 2009 and Granovetter, 1985).

In summary therefore and in line with the findings demonstrated in this study, the procurement approach that will lead to the creation of improved value and protect its erosion is the combination of the transactional and relational procurement approach in managing the UK Government procurement expenditure. This finding is substantiated by the findings in Liu et al. which posit that “when transactional and relational mechanisms are used together, there will be greater benefits in terms of opportunism mitigation and performance enhancement than when they are used separately” (Liu et al., 2009:305). This provides justifiable emphasis on the importance of ‘concurrently and interactively employing both

transactional and relational mechanisms together in order to effectively govern buyer–supplier relationship’ and the general effectiveness of the combined joint effect that transactional and relational procurement approaches offers in curbing opportunism and enhancing collaborative and mutual benefits for participating parties (Liu et al., 2009: 305), in this case for the UK Government and its suppliers.

4.11 Leveraging the most appropriate procurement approach across Government

Having established that the combined transactional and relational procurement approach is the most optimum method for creating and retaining value amongst UK Government Departments based on the analysis of the survey responses from three UK Government Departments namely the DWP, HMRC and MOJ and some of their strategic IT Desktop providers. It is important therefore to now consider the best way of leveraging the most appropriate procurement method (which is now determined to be the combined transactional and relational procurement method) across the UK Government.

To do this, questionnaire respondents were invited to select from a set of pre-set and closed questions on which of the identified options they found most appropriate for leveraging the most optimum procurement method across different Government Departments (see Appendix A and B). The result of these responses is provided in Table 4.27 below, this is also supported with a pie chart in Figure 4.2 below.

The most appropriate method identified by both Government Departments and their suppliers with a 42.86% combined response rate (N=35) is identified as ‘Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation’. Interestingly, Government Department Officials also identified this option as their most preferred option with 50% of the questionnaire respondents selecting this option, whereas only 14.29% of the suppliers preferred this option. The most preferred options from the suppliers at 25.87% respectively were ‘Individual Government Departments pooling and aggregating their

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demand with other Government Departments to create improved leverage and increased value for money' and 'creating procurement category management consolidated centres of expertise (centralised procurement at the centre of Government) to enable aggregation and increased value for money delivery'.

The least preferred option at 2.86% was 'Individual Government Departments developing their own procurement methods, capabilities and competences solely for the delivery of their products and services'. None of the Government Department Officials who completed this survey selected this option and only 14.29% of the suppliers who responded thought this was an appropriate method for leveraging the most appropriate procurement approach.

This finding supports the current approach by the UK Government where through the creation of the Crown Commercial Service, the UK Government is seeking to maximise the value that can be created and retained from its combined buying power through aggregation, the centralisation of common goods and services, pooling of demand, volumes and requirements, creating procurement category management consolidated centres of expertise such as the joint Government Banking Service and the Crown Representative function which spans most of the strategic contracts and suppliers to Government.

Similarly, the use of a pan government framework established either at the centre of Government (by the Crown Commercial Service) or by individual Government Departments with options for other Government Departments to utilise, or the delivery of pan Government contracts or frameworks for all of Government or for a subset of Government Departments to utilise. An example of this is the Money Transmission Contract installed by the Government Banking Service (GBS) which provides significant leverage for Government and its suppliers. This allows Government and its suppliers to not only develop common standards but also achieve improved leverage through volume aggregation, the use of simplified contracts, common delivery objectives, harmonised authority obligations and key performance indicators, standardised terms and conditions and a common supplier base.

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A further example of how Government Departments are pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation is the setup of the Next Generation Shared Services (NGSS) which has led to the creation of the Integrated Shared Services Centre (ISSC2) for a number of Government Departments. This allows participating Government Departments the opportunity to consolidate their back offices shared services functions including items such as payroll, employee services, financial services, business intelligence etc. within a pan government framework entered into by the Crown with individual Government Departments retaining their individual call off contracts. This consolidation across Government provides the benefit of a shared and common infrastructure, a common solution, shared cost of ownership, a leveraged asset and improved value for money for both government and the service providers.

This study therefore posits that for the UK Government to enhance its value and efficiency delivery through procurement and supply chain management and also retain the value created in the process, it should seek to encourage the use of the combined transactional and relational procurement approaches. However, this in itself will not be enough; it will have to be augmented with Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation.

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	Government responses) (28		Suppliers responses) (7		Combined responses) (35	
Option	Responses	%	Responses	%	Responses	%
Individual Government Departments developing their own Procurement methods, capabilities and competences solely for the delivery of their products and services	0	0.00%	1	14.29%	1	2.86%
Individual Government Departments developing their own independent supply chains and supplier relationship management with their respective suppliers	0	0.00%	0	0.00%	0	0.00%
Individual Government Departments pooling and aggregating their demand with other Government Departments to create improved leverage and increased value for money	6	21.43%	2	28.57%	8	22.86%
Individual Government Departments delivering specific Procurement contracts for which they control the most volume and for which they are able to create the best value across Government	1	3.57%	1	14.29%	2	5.71%
Creating procurement category management consolidated centres of expertise (centralised procurement at the centre of Government) to enable aggregation and increased value for money delivery	5	17.86%	2	28.57%	7	20.00%
Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation	14	50.00%	1	14.29%	15	42.86%
Other	2	7.14%	0	0.00%	2	5.71%

Table 4.27: Leveraging the most appropriate procurement approach across Government

4.12 Adopting the combined transactional and relational procurement approach

As indicated in the findings above that the combined transactional and relational procurement approach offers up the most optimum procurement approach for delivering and retaining value within the UK public sector, it is important therefore to understand how this approach is best deployed or adopted.

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The majority of the UK Government Departments already deploys the transactional, relational or mixed approaches to varying degrees. The EU and UK Procurement Directives and Regulations in respect of Competitive Dialogue also support the deployment of these approaches to varying degrees. However, UK Government Procurement policies, governance and procurement assurance frameworks as implemented by the Cabinet Office limits the extent of the application and implementation of aspects of the relational and the combined procurement approach.

In order to ensure the successful application of the identified optimum procurement approach, it is important that UK Government Departments are afforded the flexibilities to engage in not just transactional procurement approaches but also the authority to vary their contracts and commercial arrangements outside of the Cabinet Office established governance and assurance processes. This will allow each Department the flexibilities through their relational engagements with their providers to vary the terms of their contracts including the provisions for contract extensions. Having these flexibilities will ensure the maximisation of the value that can accrue from not just engaging with this approach but more importantly being able to utilise the contracting framework to execute their joint (Government and Supplier) aspirations.

This in effect removes the restrictions placed on Government Departments by the UK Cabinet Office in respect of a number of the categories of spend such as Information Technology (IT) which requires their approval and seeks to limit the scope for further extensions to existing contracts with a preference for re-competition.

In summary therefore, as indicated in Figure 4.2 below the top three most appropriate procurement method identified by the survey respondents are as follows:

The first and most preferred option is Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation which was selected as the preferred option by 42.8% of the

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respondents. The second preferred option was Individual Government Departments pooling and aggregating their demand with other Government Departments to create improved leverage and increased value for money with 22.86% selecting this as the preferred option. Creating procurement category management consolidated centres of expertise (centralised procurement at the centre of Government) to enable aggregation and increased value for money delivery was the third preferred option with 20% of the respondents selecting this as an option.

These findings provides empirical validation for the study's research objective 2 which is to establish how the evaluated approaches should be leveraged across the UK public sector procurement groups and across various procurement categories. This is to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements.

In addition to the factors identified above on the best way of leveraging the most appropriate procurement method across the UK Government, respondents also identified as prompted in the questionnaire two additional factors that should be considered and these are as follows. A combination of all the factors listed above, for larger departments best value is likely to be achieved via own supply chains and for smaller Departments pooling via frameworks is suggested. Additionally they identified the creation of public sector specific markets for commodities and services whereby the Public Sector creates and shapes those specific markets.

The analysis also concluded that flexibilities should be afforded Government Departments by the UK Government's Cabinet Office especially in respect of those contracts that requires their approvals by granting them the authority to vary their contracts in pursuant of the combined transactional and relational procurement approach in order drive, deliver and retain optimum value.

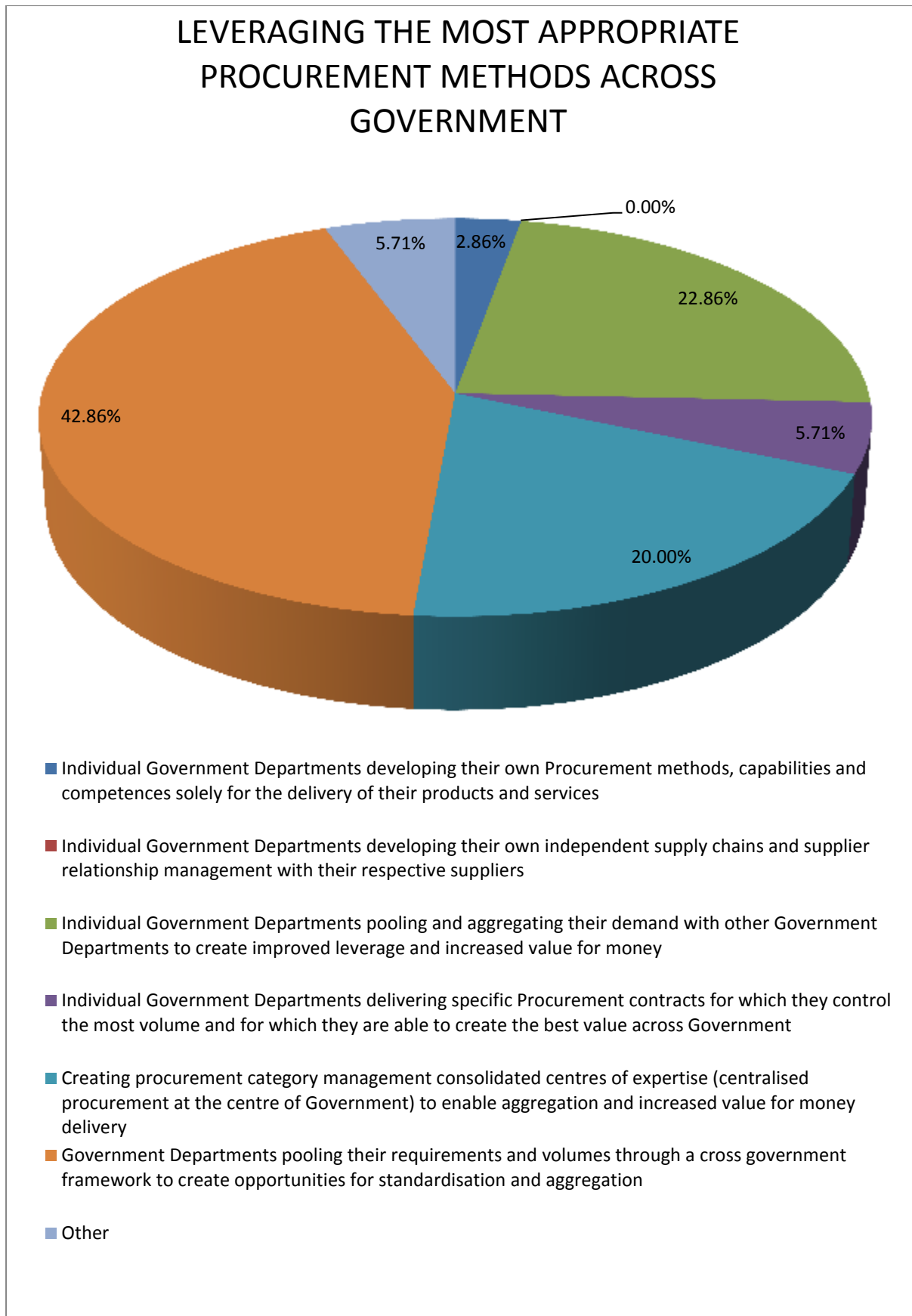


Figure 4.2: Leveraging the most appropriate procurement method across Government

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In conclusion therefore, this study found that the use of the combined transactional and relational procurement approaches provides the most optimum procurement approach in enhancing the UK Government's efficiency delivery, value creation and retention. It recommends that this should be further leveraged by Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation. Furthermore, it provides evidence to demonstrate the need for some flexibility for Government Departments to have the authority to vary their contracts in pursuant of the combined transactional and relational procurement approach in order drive, deliver and retain optimum value with little or no central controls from the Cabinet Office.

The next chapter focuses on identifying and critically analysing the critical success factors that are required to successfully implement the most optimum procurement approach which in this study is identified as the combined transactional and relational procurement approaches across the UK public sector procurement organisation.

5 CHAPTER FIVE – CRITICAL SUCCESS FACTORS

5.1 Introduction

The findings and results of the survey analysis (contained within chapter four) concluded that the UK Government should seek to encourage the use of the combined transactional and relational procurement approaches in order to enhance its value and efficiency delivery. The analysis also indicated that this in itself will not be enough, that it will have to be augmented with Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation.

In order to achieve the findings and results set out above, it is important to identify the critical success factors for implementing the best-performing procurement approach in the UK public procurement. This chapter therefore explores the critical success factors for implementing the best performing procurement approach as set out in research objective three which is as follows.

5.1.1 Research Objective Three

To investigate the critical success factors for implementing the best performing procurement approach in the UK public procurement.

5.2 Methodology

In examining the responses to the completed questionnaire on critical success factors for implementing the best-performing procurement approach in the UK public procurement this study adopts the content analysis of the responses as its core qualitative methodology. The data collection process allowed all respondents to articulate their responses, knowledge and practical experiences freely and objectively. According to Maykut and Morehouse (1994) "words are the way that most people come to understand their situations; we create our world with words; we explain ourselves with words; we defend and hide ourselves with

words ... the task of the researcher is to find patterns within those words and to present those patterns for others to inspect (Maykut and Morehouse, 1994: 18).

As identified in section 3.5.3 and 3.8, survey respondents were asked as part of the survey questionnaire containing the quantitative questions to list the critical success factors that will enable the implementation of the best-performing procurement method in the UK public procurement. The responses on the identified success factors from the survey will be clustered into 6 core groups of critical success factors namely human, process, Institutional, strategic, cross-domain and operational. These clusters were adapted from Schlosser et al. (2012). Clustering the identified Critical success factors into groups of factors is in line with the findings in Schultz, Slevin and Pinto (1987) where it was suggested that in most industries there are usually three to six factors that determine success. Similarly, Schlosser et al (2012) also grouped identified success factors into 6 distinct groups which comprised of three horizontal organizational layers - strategic, cross-domain, operational - and three vertical dimensions on the content of alignment which are human, social, and intellectual. Others studies such as Bullen and Rockart (1981) identified five critical success factors which are industry, competitive strategy and industry position, environmental factors, temporal factors and managerial positions.

The data generated from the questionnaire responses, although meaningful in their own rights, have to be grouped into predefined and meaningful categories in order to create useful and relevant associations. This process of inductive reasoning is referred to as coding (Stemler, 2001) and it involves splitting the data into discrete 'incidents' (Glaser and Strauss, 1967) or units (Lincoln and Guba, 1985) prior to codification into categories. The method of categorisation into codes in this study focuses directly on the research aims and objectives. Several cycles of categorisation and coding were conducted, compared, refined and changed in order to establish firm associations with the responses from the completed questionnaire. This is in line with the views of Taylor and Bogdan (1984) which states that "the researcher simultaneously codes and analyses data in order to develop concepts. By

continually comparing specific incidents in the data, the researcher refines the identified concepts, identifies their properties, explores their relationships to one another, and integrates them into a coherent explanatory model” (Taylor and Bogdan, 1984: 126).

5.2.1 Validity and Reliability

Qualitative data analysis provides a structure for organising questionnaire responses for comparison, contrasting, categorising and analysing. Using the NVivo software for conducting the analytic process helps improve the efficiency of the analysis and provides greater capability to do more sophisticated comparisons (Auld et al., 2007). It is widely believed that the use of software such as NVivo as utilised in this research study and in analysing qualitative data helps improve the acceptance rates of published works such as those published in journal articles.

In testing for construct validity multiple sources of evidence were utilised by way of open and closed questions in the questionnaire that survey respondents completed. This is complemented through internal validity by explanation building and pattern matching which is achieved through the analysis of the NVivo output report on the identified critical success factors. This model is in line with the test for construct validity and internal validity as espoused in Yin (Yin, 2009: 41). Pattern matching, explanation building and model building for this study was conducted through the use of the NVivo Software in analysing the survey questionnaire responses.

5.2.2 Reliability

The use of the NVivo Software and its independent assignment of nodes ensure the reliability of the data analysis, it also reduces bias and errors and ensures that the analysis and findings can be replicated. This is achieved primarily through the detailed coding structures and the assignment of meanings to each of the nodes that are developed. It reduces biases and errors because it is computed electronically rather than manually which

ensures the independent assignment of specific attributes and identified critical success factors to specific themes.

5.3 Data Analysis

NVivo (Version 11 ® QSR International) software is used in the qualitative data management, manipulation and analysis in this study. This software provides extensive capabilities in managing extensive data/information, analysing questionnaire responses (coded) and performing cross-case analysis (Bazeley, 2007). The use of software in qualitative data analysis ensures the integrity and rigour of the process (Bazeley, 2007: 3). It provides a transparent audit trail upon which trust can be based, logs data movement and therefore traceable and develops coding patterns and mapping used in the analysis. There are however, several components in NVivo which are used for data processing. This includes sources such as questionnaire responses, nodes including hierarchies and codes, queries, results, mapping etc. Some of these sources are utilised in conducting this analysis.

This qualitative data analysis adopts an analysis process which is similar to those set out in Krippendorff (2004) as detailed in Table 5.1 and 5.2 below. It comprises of coding, code management (initial categorisation of open codes and data reduction) and writing to prompt deeper thinking of the interpretation of the collected data (Bazeley, 2009). Table 5.2 below provides a summary of the application of the Krippendorff analytical process to this research.








Analytical Process (Krippendorff, 2004).	Krippendorff Practical Application in NVivo	Strategic Objective	Iterative process throughout analysis
What data are analysed. How are they defined What is the population from which they are drawn (Source)	Phase 1: Transcribing submissions and formatting demographic and other profiling information into a single table for import into a computer aided qualitative data analysis system (NVivo)	Data Management (<i>Open and hierarchal coding through NINVO</i>) 	Who said what?  Why did they say it? 
What are the context relative to which the data are analysed (Encoding Process)	Phase 2 – Open Coding Phase 3 – Categorisation of Codes Phase 4 – Coding on Phase 5 – Data reduction/Consolidation	Descriptive Accounts (<i>Reordering, 'coding on' and annotating through NVIVO</i>) 	How did they say it? 
Exploring relationships and patterns across categories (Channel, Message, Recipient)	Phase 6: Generating Analytical Memos		What inferences may be drawn? 
Integrating data to write findings (Decoding Process)	<u>Phase 7</u> – Validating <i>analytical memos</i> <u>Phase 8</u> – synthesising <i>analytical memos</i>	Explanatory Accounts (<i>Extrapolating deeper meaning, drafting summary statements and analytical memos through NVIVO</i>)	To whom did they say it  With what effect?

Table 5.1: Stages and Process involved in Qualitative Analysis

Source: Adapted from Krippendorff (2004). Analytical Hierarchy to data analysis

CHAPTER FIVE – CRITICAL SUCCESS FACTORS









Analytical Process (Krippendorff, 2004).	Krippendorff Practical Application in NVivo	Strategic Objective	Iterative process throughout analysis	Application of the Krippendorff Analytical Process to this Research
What data are analysed. How are they defined What is the population from which they are drawn (Source)	Phase 1: Transcribing submissions and formatting demographic and other profiling information into a single table for import into a computer aided qualitative data analysis system (NVivo)	Data Management (<i>Open and hierarchal coding through NINVO</i>) 	Who said what?  Why did they say it? 	Questionnaire Survey responses identifying critical success factors. Downloaded from the survey tool into an excel spread sheet for uploading into NVivo Open and hierarchal coding through NINVO
What are the context relative to which the data are analysed (Encoding Process)	Phase 2 – Open Coding Phase 3 – Categorisation of Codes Phase 4 – Coding on Phase 5 – Data reduction/Consolidation	Descriptive Accounts (<i>Reordering, 'coding on' and annotating through NVIVO</i>) 	How did they say it?  What inferences may be drawn? 	Open Coding Categorisation of Codes Coding on Data reordering and reduction/consolidation
Exploring relationships and patterns across categories (Channel, Message, Recipient)	Phase 6: Generating Analytical Memos		To whom did they say it  With what effect?	Generated hierarchical code structure Generated frequency of critical success factors Segmented in order of preference of the identified critical success factors
Integrating data to write findings (Decoding Process)	Phase 7 – Validating <i>analytical memos</i> Phase 8– synthesising <i>analytical memos</i>	Explanatory Accounts (<i>Extrapolating deeper meaning, drafting summary statements and analytical memos through NVIVO</i>)		<i>Interpretation of the identified critical success factors and linking them to the creation retention of value within the UK public sector</i>

Table 5.2: Application of the Krippendorff Analytical Process to this Research

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The first phase in making sense of the data (questionnaire responses) in a format that is compatible for importing into a computer aided qualitative data analysis system such as NVivo was to transfer all the identified critical success factors from the survey into an NVivo compatible Microsoft Excel spread sheet as shown below in Table 5.3. Questionnaire respondents were asked by way of a free text question to add as much comments as they like by listing the critical success factors that will enable the implementation of the best performing procurement method in the UK public procurement. In order to preserve the integrity of the questionnaire responses, all of the responses have been left in their original formats including grammatical errors, incorrect sentence structures and spelling mistakes.

5.3.1 NVivo Coding for Critical Success Factors

Cases	Critical Success Factors	Respondents
1	Greater standardisation	B1
2	Improved re-use of assets and IP	B1
3	Sufficient capacity and capability	B1
4	Common objectives	B1
5	Stability in supply	B1
6	An intelligent client function in each department - an organisation that understands the technology, services, suppliers, commercial levers.	B2
7	Whilst there is merit in a centralised pan government team, i think there would be distrust from Departments as there would not be any business context applied.	B2
8	Finally I believe that the desktop service has been overcomplicated to the detriment of bringing in new players to the Government desktop market.	B2
9	Industry or category ed approach. Select best VFM approach depending on category. Some will be public sector wide, some central Govt, soeme dept and some local. Aim for standard specs where possible. Centralised procurement must balance VFM with customer service and be really accountable for delivering savings.	B3
10	The recruitment and retention of highly capable and qualified staff	B4
11	Yes to the above, but important to recognise where Departmental interests coincide and where they diverge. Centralisation and scale does not necessarily deliver value or efficiency if the single solutions lacks the flexibility to meet diverse (and sometimes fast changing) requirements.	B5
12	Having and develop key and deep skills critical to holding suppliers to account and ensuring real value is secured from large-scale and complex contracts	B5
13	Highly trained and motivated procurement experts	B6
14	Realistic approach to project timetables	B6
15	Making decisions early about scope of service requirements taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best)	B6
16	ICT commercial management viewed as not important by some SCS in DWP commercial Lack of understanding that Cat Man responsibilities split between IT, Finance and CD	B7
17	Hiring and retaining highly capable staff	B8
18	Clear linkage with business strategy	B8

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19	Strong governance of the overall process	B8
20	Standardising procurement processes (LEAN)	B9
21	Pan Government contracts	B9
22	Challenging the need to spend	B9
23	Skilled procurement professionals	B9
24	Intelligent Procurement/Intelligent Customer. Too often procurement is seen outside of the context of the services required. Having an in-depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected.	B10
25	Development in current staff - not just training but providing opportunities for broadening an individual's experience.	B11
26	More use of secondments between departments both for incumbents and as part of the PDMS scheme.	B11
27	A move to a more flexible approach where local procurement can be applied ensuring SMEs have an opportunity to work with the public sector.	B11
28	It is widely recognised that competition drives VFM.	B12
29	It is up to Public Sector to create and shape truly competitive markets for the provision of the services and commodities they require which ensures that they appropriate the value opportunities available through effective "Demand Management" in the true sense of the meaning.	B12
30	The survey asks the following type of question:	B13
31	Penalties and incentives that govern performance are detailed in our Desktop Contracts	B13
32	To which the answer is yes. But the issue as to whether they are sufficient and material to the value of the service or business, is not asked. The answer to this latter question is no.	B13
33	Any procurement process that I have ever seen in government forgets that a company is only interested in making a profit for its investors. Anything a company can do to maximise this it will do.	B13
34	Government needs to employ more and better lawyers.	B13
35	For Desktop services, buyers need to have a thorough knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation.	B14
36	Speed to market and speed to service award.	B15
37	Highly capable staff within a purchasing environment.	B15
38	Highly capable staff within the Client organisation which manages the relationship to improve value.	B15
39	Ability and willingness for Government Depts to work collectively.	B15
40	Delivery of change and improved business services.	B15
41	Highly capable skilled staff	B16
42	Input from appropriate experts	B16
43	Collaboration between departments.	B16
44	Reduction in red tape - progressing anything in government is now nigh-on impossible.	B17
45	Trained, skilled but more importantly MOTIVATED staff (morale is poor across the piece from my experience).	B17
46	Larger departments have to lead - the idea of a standardised desktop is achievable and has to be desirable - but with the best will in the world a department's size impacts the final price achieved.	B17
47	Cabinet Office need to leave the procurement to GPS and the Public Bodies.	B17
48	Relaxation in over the top security requirements.	B17
49	Easy entry/access to the Framework.	B17
50	Easy purchasing from the framework ('further competitions' may be the answer sometimes, but not always)	B17
51	Where individual departments have a large requirement, the ability to do a 'one-off' deal - financial year ends, size, timing etc are a reality of procurement.	B17
52	Use the model of the G-Cloud Cloud Store; each department needs its own skilled technical and commercial people, but they can make best use of suppliers available through centrally managed framework where best price is achieved.	B18
53	Cultural alignment	B19
54	Best staff - on both sides	B19

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55	Continuity of staff on both sides	B19
56	Both sides understanding what the other is trying to achieve, and must achieve through the relationship	B19
57	The Implementation not being too big - that doesn't prevent volumes being pooled however for economic advantage	B19
58	Radical rethink of our requirements and our service wrapper are critical to us achieving to value for money across dwp & govt.	B20
59	Building specific market understanding in buyers and service delivery i.e. ability to see beyond the confines of your current contract.	B20
60	Cross government standardisation/commoditisation of requirement.	B20
61	Shiniest is not best - no one in govt needs anything made by Apple that cant be provided by another vendor more cheaply.	B20
62	Developing the skills sets needed in each department, rather than a central function but with a knowledge zone or some type of best practice sharing so that knowledge could be passed between people working in different departments	B21
63	Specialist skill sets required who have a deep understanding of the charging models in the Supply organisations i.e. license model specialists to ensure we are maximising the most out of the Supplier's models/capability/limits.	B21
64	Pan-Government deals with Supplier's - purchase as the Crown for the Crown as scale = best possible pricing.	B21
65	Pan-Government asset databases is maintained to enable sharing of spares across the departments i.e. surplus software licenses/standard kit. If terms prevent re-distribution, then negotiate that flexibility into any pan-Gov / MOU's with the Suppliers.	B21
66	Incentivise Suppliers to maximise value opportunities.	B21
67	Clear communication from Central Government on Procurement policy and strategy - mixed messages and changing emphasis being the norm	B22
68	Skilled and competent people in procurement and contract management	B22
69	A robust Framework Agreement with approved Suppliers	B22
70	Pre-procurement engagement with Suppliers to promote SRM from the outset	B22
71	Contract clarity including definitions, description of services, delivery, performance, penalties, partnering etc.	B22
72	In-contract joint task groups to resolve contractual problems	B22
73	Fully documented contract clarifications, changes, variations etc.	B22
74	An in-contract joint task group specifically to drive out innovation, improvements and value for money	B22
75	The recruitment and retention of highly capable and qualified staff;	B23
76	Aggregation of demand for commodity products and services e.g. travel tickets.	B23
77	Compromise. As far as possible standardise products and services across government.	B23
78	Have more of the right skills and calibre of staff client side.	B24
79	Agreed Strategy	B25
80	Common Culture	B25
81	Agreed Risk Management	B25
82	Training beyond CIPS Qualification. eg negotiation skills, project management	B25
83	Commercial Board with devolved accountabilities.	B25
84	The creation of a pan Government Centralised and flexible Procurement Function,	B26
85	The vestment of the Procurement Buying Authority on a Centralised Procurement Authority	B26
86	Centralisation can mean too great a distance from the business and customers. Can also mean savings claimed are not real - centre does not hold the budget.	B10
87	I am conscious I am a bit out of touch and that as I left we were addressing an abortive procurement and move to more centralisation. I've not seen the outcome of that. Also I recognise the level of goodwill and off contract agreement and support that has no doubt enabled progress with UC and other major initiatives; but with the real test coming in the approach both parties take to contractualising informal agreements and whether both get value from such negotiations; and critically whether the Department has the skills and capacity to manage the volume and complexity of these negotiations.	B20

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88	As procurement professionals we must stop going out to market before the business has fully understood the requirement. Approaching the market before this is done is embarrassing and despite CO warning against it this still happens today. Truly stopping this practise will enhance our approach to UK public procurement.	B3o
89	Government policy drives strategy, however from a commercial perspective I am not convinced that our policy development is sufficiently informed by market and supplier intelligence and therefore we loose significant opportunities to appropriate additional value within our commercial relationships. Furthermore given the extent of public services that have been outsourced and the tendency for long term contracts and or managed services I am not sure that our commercial strategies are designed to achieve best value for money.	B4o
90	We seem to have recognised the need for Agility and Agile Services within our development programmes but have not carried forward Agile thinking into our commercial strategies and/or commercial vehicles.	B4o
91	It is also recommended that buyers of Desktop services become the category managers to ensure the optimal contract implementation outcomes.	B5o
92	Why does the survey consider "procurement" in the context of "strategic commercial management" ? Are they really the same ?	B6o
93	Suppliers need early knowledge of planned work, so all departments should publish their pipeline of work and encourage ideas from the supply market to influence requirements, to be in line with market standards.	B7o
94	The customer needs to be aware that the supplier has shareholders driving thweir behaviours	B8o
95	Open Book may be an appropriate method of enggagement but we need to be mature in understanding the supplier's costs in managing their business with us	B8o
96	Govt depts have to stop thinking that their requirements make them special. true cost reduction and value will only be achieve by robust and knowledgeable challenge at the point requirements are being determined.	B9o
97	My general feeling is that Government Contractors, whether they be directly appointed by individual departments or through mini-competitions from a Framework Agreement, always have the upper hand simply because we are not smart enough in Procurement and contract management and we always struggle to drive out value for money and efficiencies when all contractors are interested in is maximising profit. There is little interest or appetite from a contractor in partnering or collaboration for innovation and improvement unless there's money in it for them. These are the areas where we should focus in Procurement in a bid to maximise contract potential and benefits and prowess in negotiation.	B10o
98	I think there are a number of options for how procurement can be managed accross government such as a central buying authority, use of Frameworks, core group of suppliers etc each with there own merits and drawbacks. What is critical in any model though is a common aggregated requirement. We have cross government IT Frameworks and each central government buys essentially the same services separately. Desktop is a good example. The very best value would be to align central government contracts work together to agree a standard requirement and approach the market as one. This requires a degree of collaboration and compromise not previously seen.	B11o
99	The concept of partnership where one party is driven by profit and shareholder value creation and the other party is driven by value for money and minimising cost is an oxymoron - the supplier will always seek to profiteer...	B12o
100	The above information has been a challenge to complete as we have seen our own engagement with HMRC change throughout the life our contract - going from direct interaction to becoming a sub contractor to ASPIRE and this has a material impact on the engagement and experience reflected.	B12o
101	It would also be good to see more Government staff rather than contractors.	B12o
102	Successful category management is dependent upon expertise that identifies desktop as not just a commodity activity. Technological change means that it ios important for the use of desktop to be considered alongside other aspects of IT transformation rather than just a "baked bean" style of transaction. This requires technically capable and aware IT procurement staff who understand the impact of such change on the procurement agenda. There is a need to ensure any centralised framework starregy is sufficiently flexible as to address the individual departmental services requirements or the resulting output will be higher service integration charges. A range of approved suppliers whose core business is Desktop delivery would reduce costs and ensure success.	S1
103	Leveraging the supplier capacity for the delivery of Government wide contracts and across all government Departments	S2
104	The creation of pan-Government procurement functions and frameworks (eg G-Cloud) to provide centralises and flexible procurement.	S3
105	Need to consolidate more procurement exercises as its currently being run for each individual government body meaning best value and practices are not gained	S4
106	The retention of capable and qualified staff is a critical success factor. I have worked with Government officials for the past 10-years and on occasions the capability of staff involved has been questionable.	S5

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107	It would also be good to see more Government staff rather than contractors.	S6
108	Flexible and leverageable function.	S7
109	Clear definition of government strategy and objectives at both central and departmental levels.	S8
110	Clear requirements with respect to the specific contract being procured.	S9
111	Access to high quality staff representing all stakeholder groups within the govt department that contribute to the procurement (not just procurement staff).	S10
112	Open and collaborative approach to contract negotiations and subsequent delivery.	S11
113	Making the procurement process as efficient as possible for all parties.	S12
114	Getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique) needs of the individual govt department that is procuring the service.	S13
115	Treating all suppliers fairly.	S14
116	Recognising the value of innovation, collaboration, partnership and focus on service quality alongside price when evaluating proposals.	S15
117	Considering innovative ways of paying for services and sharing benefits with suppliers where such benefits have been jointly realised.	S16

Table 5.3: NVivo Coding for Critical Success Factors

The second phase involved open coding with clear labelling and definitions which served as rules for inclusion into the data analyses including units of meaning coded from the questionnaire responses (Maykut & Morehouse, 1994:126-149). This is shown in Table 5.4 below. All the responses have been left in their original formats including grammatical errors, incorrect sentence structures and spelling mistakes to preserve their originality.

Definitions	Questionnaire responses	Respondents
Accountabilities	Commercial Board with devolved accountabilities.	B25
Incremental Project Management	We seem to have recognised the need for Agility and Agile Services within our development programmes but have not carried forward Agile thinking into our commercial strategies and/or commercial vehicles.	B4o
Best practice	developing the skills sets needed in each department, rather than a central function but with a knowledge zone or some type of best practice sharing so that knowledge could be passed between people workign in different departments	B21
	To which the answer is yes. But the issue as to whether they are sufficient and material to the value of the service or business, is not asked. The answer to this latter question is no.	B13
Alignment of procurement Solutions to Business Strategy and Governance	clear linkage with business strategy	B8
	strong governance of the overall process	B8
Relevant and appropriate professional skills, competence and capability of Government Officials	Having and develop key and deep skills critical to holding suppliers to account and ensuring real value is secured from large-scale and complex contracts	B5
	highly trained and motivated procurement experts	B6
Skilled, competent and capable Government Officials	Skilled procurement professionals	B9
	Development in current staff - not just training but providing opportunities for broadening an individuals experience.	B11
	For Desktop services, buyers need to have a thorough knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation.	B14
	Highly capable staff within a purchasing environment.	B15

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	Highly capable staff within the Client organisation which manages the relationship to improve value.	B15
	Highly capable skilled staff	B16
	Input from appropriate experts	B16
	Trained, skilled but more importantly MOTIVATED staff (morale is poor across the piece from my experience).	B17
	Use the model of the G-Cloud Cloud Store; each department needs its own skilled technical and commercial people, but they can make best use of suppliers available through centrally managed framework where best price is achieved.	B18
	Best staff - on both sides	B19
	building specific market understanding in buyers and service delivery i.e. ability to see beyond the confines of your current contract.	B20
	Specialist skill sets required who have a deep understanding of the charging models in the Supply organisations i.e. license model specialists to ensure we are maximising the most out of the Supplier's models/capability/limits.	B21
	Skilled and competent people in procurement and contract management	B22
	Training beyond CIPS Qualification. eg negotiation skills, project management	B25
	govt depts have to stop thinking that their requirements make them special. true cost reduction and value will only be achieved by robust and knowledgeable challenge at the point requirements are being determined.	B9o
	Successful category management is dependent upon expertise that identifies desktop as not just a commodity activity. Technological change means that it is important for the use of desktop to be considered alongside other aspects of IT transformation rather than just a "baked bean" style of transaction. This requires technically capable and aware IT procurement staff who understand the impact of such change on the procurement agenda. There is a need to ensure any centralised framework strategy is sufficiently flexible as to address the individual departmental services requirements or the resulting output will be higher service integration charges. A range of approved suppliers whose core business is Desktop delivery would reduce costs and ensure success.	S1
	Government needs to employ more and better lawyers.	B13
Capacity of Government Officials to manage and deliver effective Commercial Management	sufficient capacity and capability	B1
	I am conscious I am a bit out of touch and that as I left we were addressing an abortive procurement and move to more centralisation. I've not seen the outcome of that. Also I recognise the level of goodwill and off contract agreement and support that has no doubt enabled progress with UC and other major initiatives; but with the real test coming in the approach both parties take to contractualising informal agreements and whether both get value from such negotiations; and critically whether the Department has the skills and capacity to manage the volume and complexity of these negotiations.	B2o
	It would also be good to see more Government staff rather than contractors.	
	It would also be good to see more Government staff rather than contractors.	S6
End to end Category Management with appropriate market insights and intelligence	ICT commercial management viewed as not important by some SCS in DWP commercial Lack of understanding that Cat Man responsibilities split between IT, Finance and CD	B7
	It is also recommended that buyers of Desktop services become the category managers to ensure the optimal contract implementation outcomes.	B5o
Centralisation of procurements and requirements fulfilment	Whilst there is merit in a centralised pan government team, i think there would be distrust from Departments as there would not be any business context applied.	B2

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	Industry or category ed approach. Select best VFM approach depending on category. Some will be public sector wide, some central Govt, soeme dept and some local. Aim for standard specs where possible. Centralised procurement must balance VFM with customer service and be really accountable for delivering savings.	B3
	Pan Government contracts	B9
	the creation of a pan Government Centralised and flexible Procurement Function,	B26
	the vestment of the Procurement Buying Authority on a Centralised Procurement Authority	B26
	Centralisation can mean too great a distance from the business and customers. Can also mean savings claimed are not real - centre does not hold the budget.	B1o
	I think there are a number of options for how procurement can be managed accross government such as a central buying authority, use of Frameworks, core group of suppliers etc each with there own merits and drawbacks. What is critical in any model though is a common aggregated requirement. We have cross government IT Frameworks and each central government buys essentially the same services separately. Desktop is a good example. The very best value would be to align central government contracts work together to agree a standard requirement and approach the market as one. This requires a degree of collaboration and compromise not previously seen.	B110
	The creation of pan-Government procurement functions and frameworks (eg G-Cloud) to provide centralises and flexible procurement.	S3
Change Management	Delivery of change and improved business services.	B15
	Fully documented contract clarifications, changes, variations etc.	B22
Working more closely together and sharing best practice amongst Government Departments	Collaboration between departments.	B16
	Open and collaborative approach to contract negotiations and subsequent delivery.	S11
	Recognising the value of innovation, collaboration, partnership and focus on service quality alongside price when evaluating proposals.	S15
Commercial strategies that delivers optimum outcome	Government policy drives strategy, however from a commercial perspective I am not convinced that our policy development is sufficiently informed by market and supplier intelligence and therefore we loose significant opportunities to appropriate additional value within our commercial relationships. Furthermore given the extent of public services that have been outsourced and the tendency for long term contracts and or managed services I am not sure that our commercial strategies are designed to achieve best value for money.	B4o
Common Objectives across Government Departments	common objectives	B1
More use of Procurement Competition	It is widely recognised that competition drives VFM.	B12
Increasing competition and shaping the market	It is up to Public Sector to create and shape truly competitive markets for the provision of the services and commodities they require which ensures that they appropriate the value opportunities available through effective "Demand Management" in the true sense of the meaning.	B12
Contractual issues resolution	In-contract joint task groups to resolve contractual problems	B22
A common and consistent way of doing things amongst Government Departments	Common Culture	B25
	Cultural alignment	B19
The independence of Government Departments from central control from the Cabinet Office	Cabinet Office need to leave the procurement to GPS and the Public Bodies.	B17
	where individual departments have a large requirement, the ability to do a 'one-off' deal - financial year ends, size, timing etc are a reality of procurement.	B17
Effective management of demand	Challenging the need to spend	B9
Early engagement with suppliers	Pre-procurement engagement with Suppliers to promote SRM from the outset	B22

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	The above information has been a challenge to complete as we have seen our own engagement with HMRC change throughout the life our contract - going from direct interaction to becoming a sub contractor to ASPIRE and this has a material impact on the engagement and experience reflected.	B12o
Treating all suppliers fairly.	Treating all suppliers fairly.	S14
Recognising when to centralise and when to defer to Government Departments including the use of Small Medium Enterprise and the third sector organisations	Yes to the above, but important to recognise where Departmental interests coincide and where they diverge. Centralisation and scale does not necessarily deliver value or efficiency if the single solutions lacks the flexibility to meet diverse (and sometimes fast changing) requirements.	B5
	A move to a more flexible approach where local procurement can be applied ensuring SMEs have an opportunity to work with the public sector.	B11
	Have more of the right skills and calibre of staff client side.	B24
	Flexible and leverageable function.	S7
	easy entry/access to the Framework.	B17
	easy purchasing from the framework ('further competitions' may be the answer sometimes, but not always)	B17
	A robust Framework Agreement with approved Suppliers	B22
Sharing benefits with the supply chain	Considering innovative ways of paying for services and sharing benefits with suppliers where such benefits have been jointly realised.	S16
The use of Contract Incentives to drive performance	Penalties and incentives that govern performance are detailed in our Desktop Contracts	B13
	Incentivise Suppliers to maximise value opportunities.	B21
Delivering innovation and innovative contracts	An in-contract joint task group specifically to drive out innovation, improvements and value for money	B22
Cross functional intelligent client function within government departments to enable effective procurement	An intelligent client function in each department - an organisation that understands the technology, services, suppliers, commercial levers.	B2
	Intelligent Procurement/Intelligent Customer. Too often procurement is seen outside of the context of the services required. Having an indepth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected.	B10
	Access to high quality staff representing all stakeholder groups within the govt department that contribute to the procurement (not just procurement staff).	S10
Cost Transparency	Open Book may be an appropriate method of engagement but we need to be mature in understanding the supplier's costs in managing their business with us	B8o
A current and future activity plan of initiatives, projects or key requirements	Suppliers need early knowledge of planned work, so all departments should publish their pipeline of work and encourage ideas from the supply market to influence requirements, to be in line with market standards.	B7o
Clarity and communication of Government Policy and Strategy	Clear communication from Central Government on Procurement policy and strategy - mixed messages and changing emphasis being the norm	B22
Pooling and aggregation of requirements, assets and demand	The Implementation not being too big - that doesn't prevent volumes being pooled however for economic advantage	B19
	Pan-Government asset databases is maintained to enable sharing of spares across the departments i.e. surplus software licenses/standard kit. If terms prevent re-distribution, then negotiate that flexibility into any pan-Gov / MOU's with the Suppliers.	B21
	Aggregation of demand for commodity products and services e.g. travel tickets.	B23
	need to consolidate more procurement exercises as its currently being run for each individual government body meaning best value and practices are not gained	S4

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	Getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique) needs of the individual govt department that is procuring the service.	S13
The existence of a transparent and efficient procurement process	The survey asks the following type of question:	B13
	Any procurement process that I have ever seen in government forgets that a company is only interested in making a profit for its investors. Anything a company can do to maximise this it will do.	B13
	Making the procurement process as efficient as possible for all parties.	S12
Positive return on investment	The customer needs to be aware that the supplier has shareholders driving their behaviours	B8o
	My general feeling is that Government Contractors, whether they be directly appointed by individual departments or through mini-competitions from a Framework Agreement, always have the upper hand simply because we are not smart enough in Procurement and contract management and we always struggle to drive out value for money and efficiencies when all contractors are interested in is maximising profit. There is little interest or appetite from a contractor in partnering or collaboration for innovation and improvement unless there's money in it for them. These are the areas where we should focus in Procurement in a bid to maximise contract potential and benefits and prowess in negotiation.	B10o
	The concept of partnership where one party is driven by profit and shareholder value creation and the other party is driven by value for money and minimising cost is an oxymoron - the supplier will always seek to profiteer...	B12o
Effective recruitment and retention of skilled, qualified and competent staff	The recruitment and retention of highly capable and qualified staff	B4
	hiring and retaining highly capable staff	B8
	The recruitment and retention of highly capable and qualified staff;	B23
Red tape and bureaucracy	Reduction in red tape - progressing anything in government is now nigh-on impossible.	B17
	As procurement professionals we must stop going out to market before the business has fully understood the requirement. Approaching the market before this is done is embarrassing and despite CO warning against it this still happens today. Truly stopping this practise will enhance our approach to UK public procurement.	B3o
	Both sides understanding what the other is trying to achieve, and must achieve through the relationship	B19
	making decisions early about scope of service requirements taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best)	B6
	radical rethink of our requirements and our service wrapper are critical to us achieving to value for money across dwp & govt.	B20
Simplification of requirements/specification	Finally I believe that the desktop service has been overcomplicated to the detriment of bringing in new players to the Government desktop market.	B2
	Contract clarity including definitions, description of services, delivery, performance, penalties, partnering etc.	B22
	Clear requirements with respect to the specific contract being procured.	S9
retention of skilled, qualified and professional staff	Continuity of staff on both sides	B19
	The retention of capable and qualified staff is a critical success factor. I have worked with Government officials for the past 10-years and on occasions the capability of staff involved has been questionable.	S5
Re-use of assets and Common Solutions across Government	Improved re-use of assets and IP	B1
	Agreed Risk Management	B25
Intergovernmental secondment	More use of secondments between departments both for incumbents and as part of the PDMS scheme.	B11

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Onerous government security accreditation processes and requirements	Relaxation in over the top security requirements.	B17
Speed to market and speed to service award	Speed to market and speed to service award.	B15
Stability of Supplies	stability in supply	B1
Standardisation of requirements, specification, processes and governance across Government	Greater standardisation	B1
	Standardising procurement processes (LEAN)	B9
	Ability and williness for Government Depts to work collectively.	B15
	Larger departments have to lead - the idea of a standardised desktop is achievable and has to be desirable - but with the best will in the world a department's size impacts the final price achieved.	B17
	cross government standardisation/commoditisation of requirement.	B20
	Pan-Government deals with Supplier's - purchase as the Crown for the Crown as scale = best possible pricing.	B21
	Compromise. As far as possible standardise products and services across government.	B23
The development and delivery of strategic commercial solutions	Why does the survey consider "procurement" in the context of "strategic commercial management" ? Are they really the same ?	B6o
A clear definition of Government Strategy and Objectives	Agreed Strategy	B25
	Clear definition of government strategy and objectives at both central and departmental levels.	S8
Supplier Capacity to supply	Leveraging the supplier capacity for the delivery of Government wide contracts and across all government Departments	S2
Supplier Relationship Management	shiniest is not best - no one in govt needs anything made by Apple that cant be provided by another vendor more cheaply.	B20
Realistic timelines for supplier/project delivery	realistic approach to project timetables	B6

Table 5.4: NVivo open coding with clear labelling and definitions

The level of coding detailed above was done by reviewing each of the themes identified by the questionnaire respondents and by grouping or clustering them together under similar headings. This is primarily to ensure that all identified themes are grouped together to create sub-headings against which each of the themes were classified.

The third phase concentrated on the review of the categorisation of codes, relabelling, re-ordering and definition of themes identified and coded in phase one by grouping related themes under similar categories. It included the relabelling & merging of categories to ensure that labels and rules for inclusion accurately reflect coded content. This is shown in Table 5.5 below also see Appendix H for a sample of extracted coding transcripts on critical

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success factors from NVivo. Conducting these preliminary coding of the data helps to pre-order the data in readiness for the real coding.

5.3.2 Hierarchy of Codes

Frequency	Category	Definitions
24	Capability	Relevant and appropriate professional skills, competence and capability of Government Officials
8	Centralisation	Centralisation of procurements and requirements fulfilment
7	Requirements/Specification	Simplification of requirements/specification
7	Standardisation	Standardisation of requirements, specification, processes and governance across Government
5	Pooling/Aggregation	Pooling and aggregation of requirements, assets and demand
4	Capacity	Capacity of Government Officials to manage and deliver effective Commercial Management
4	Flexibility	Recognising when to centralise and when to defer to Government Departments including the use of Small Medium Enterprise and the third sector organisations
3	Collaboration	Working more closely together and sharing best practice amongst Government Departments
3	Framework	Frameworks for contracting amongst Government Departments
3	Intelligent Client Function	Cross functional intelligent client function within government departments to enable effective procurement
3	Process	The existence of a transparent and efficient procurement process
3	Recruitment and Retention	Effective recruitment and retention of skilled, qualified and competent staff
2	Business Strategy and Governance	Alignment of procurement Solutions to Business Strategy and Governance
2	Category Management	End to end Category Management with appropriate market insights and intelligence
2	Change Management	Change Management
2	Competition	More use of Procurement Competition in fulfilling demands and requirements
2	Culture	A common and consistent way of doing things amongst Government Departments
2	Decentralisation	The independence of Government Departments from central control from the Cabinet Office
2	Engagement	Early engagement with suppliers
2	Incentives	The use of Contract Incentives to drive performance
1	Accountabilities	A clearly defined set of accountabilities by Government Officials
1	Agile	An iterative and Incremental approach to Project Management
1	Best practice	The adoption of best practice amongst government departments
1	Business Services	Business Services
1	Commercial Strategies	Commercial strategies that delivers optimum outcome
1	Common Objectives	Common Objectives across Government Departments
1	Contractual issues resolution	A process for resolving contractual issues.
1	Demand management	Effective management of demand
1	Equality of treatment	Equality of treatment
1	Gain share	Sharing benefits with the supply chain
1	Innovation	Delivering innovation and innovative contracts
1	Open Book	Cost Transparency
1	Pipeline	A current and future activity plan of initiatives, projects or key requirements
1	Policy and Strategy	Clarity and communication of Government Policy and Strategy
1	Profits	Positive return on investment
1	Red tape	Red tape and bureaucracy
1	Re-use	Re-use of assets and Common Solutions across Government

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1	Risk Management	Risk Management
1	Secondments	Inter and intra government secondment
1	Security	Onerous government security accreditation processes and requirements
1	Speed	Speed to market and speed to service award
1	Stability	Stability of Supplies
1	Strategic Commercial Management	The development and delivery of strategic commercial solutions
1	Supplier Capacity	Supplier Capacity to supply
1	Supplier Relationship Management	Supplier Relationship Management
1	Timelines	Realistic timelines for supplier/project delivery
1	Value for Money	The delivery of savings and efficiency

Table 5.5: Categorisation of codes, relabelling and re-ordering of themes

The fourth phase included uploading the critical success factors data set into the NVivo version 11 software where the NVivo coding processes were conducted. Through coding, the source content for the critical success factors were selected, defined and linked to specific themes such as capability, capacity, value etc. The Nvivo Auto coding was conducted by running the auto coding process on the NVivo Software. This helps to pre-order the data in readiness for the manual interpretive coding. This was followed by manual coding which helped to identify the units of meaning relating to the research enquiry which is about identifying the critical success factors. Manual coding thus helps through the researcher's interpretation by way of open coding to identify major categories, ascribe meanings or definitions and code related references to them. This results in hierarchical coding which logically arranges the nodes and key themes in order of frequencies or hierarchies. The nodes are then set up and coded to catalogue the key themes and gather related materials. Nodes also help to create a conceptual relationship between two or more nodes and it allows for the linking of a group of nodes together so that data can be coded to them. The query functionality was conducted to help with identifying the relevant data which contains the correct qualitative content that relates to key themes on the critical success factors. These themes were then analysed, reported and appropriate summary findings produced. The nodes structure and relationships is detailed in Appendix I.

5.3.3 NVivo Coding and Findings

Using the NVivo software the following code structure and hierarchy which is shown below in Table 5.6 was generated including the sources and number of references. Coding in this context as used in NVivo means ‘sections of text in a document that are stored in nodes’ and nodes means ‘an object in a project which represents anything that users wish to refer to, such as people, concepts, places, etc. (Auld et al., 2007: 38).

Name	Sources	References	Created On
Research Questionnaire	0	0	1/5/2016 11:57 PM
Critical Success Factors	1	111	1/5/2016 11:57 PM
Capability	1	27	1/12/2016 5:35 PM
Pooling or Aggregation	1	13	1/12/2016 5:35 PM
Centralisation	1	11	1/12/2016 5:35 PM
Category Management	1	11	1/12/2016 5:35 PM
Value For Money	1	11	1/12/2016 5:35 PM
Standardisation	1	9	1/12/2016 5:35 PM
Requirements or Specification	1	9	1/12/2016 5:35 PM
Decentralisation	1	9	1/12/2016 5:35 PM
Strategic Commercial Management	1	7	1/12/2016 5:35 PM
Collaboration	1	6	1/12/2016 5:35 PM
Capacity	1	5	1/12/2016 5:35 PM
Framework	1	5	1/12/2016 5:35 PM
Flexibility	1	4	1/12/2016 5:35 PM
Intelligent Client Function	1	4	1/12/2016 5:35 PM
Recruitment and Retention	1	4	1/12/2016 5:35 PM
Change Management	1	4	1/12/2016 5:35 PM
Engagement	1	4	1/12/2016 5:35 PM
Incentives	1	4	1/12/2016 5:35 PM
Demand Management	1	4	1/12/2016 5:35 PM
Supplier Relationship Management	1	4	1/12/2016 5:35 PM
Business Strategy and Governance	1	3	1/12/2016 5:35 PM
Commercial Strategies	1	3	1/12/2016 5:35 PM
Equality of treatment	1	3	1/12/2016 5:35 PM
Policy and Strategy	1	3	1/12/2016 5:35 PM
Profits	1	3	1/12/2016 5:35 PM
Competition	1	2	1/12/2016 5:35 PM
Agile	1	2	1/12/2016 5:35 PM
Innovation	1	2	1/12/2016 5:35 PM
Pipeline	1	2	1/12/2016 5:35 PM
Red tape	1	2	1/12/2016 5:35 PM
Risk Management	1	2	1/12/2016 5:35 PM
Supplier Capacity	1	2	1/12/2016 5:35 PM
Process	1	1	1/12/2016 5:35 PM
Accountabilities	1	1	1/12/2016 5:35 PM
Business Services	1	1	1/12/2016 5:35 PM
Common Objectives	1	1	1/12/2016 5:35 PM
Contractual issues resolution	1	1	1/12/2016 5:35 PM
Gain Share	1	1	1/12/2016 5:35 PM
Open Book	1	1	1/12/2016 5:35 PM
Re-use	1	1	1/12/2016 5:35 PM
Secondment	1	1	1/12/2016 5:35 PM
Security	1	1	1/12/2016 5:35 PM
Speed	1	1	1/12/2016 5:35 PM
Stability	1	1	1/12/2016 5:35 PM
Timelines	1	1	1/12/2016 5:35 PM

Table 5.6: Code structure and hierarchy

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Based on the application of NVivo coding rules, the illustration shown below in Figure 5.1 shows the respective weighting of each of the critical success factors following the coding of responses to the respective nodes.

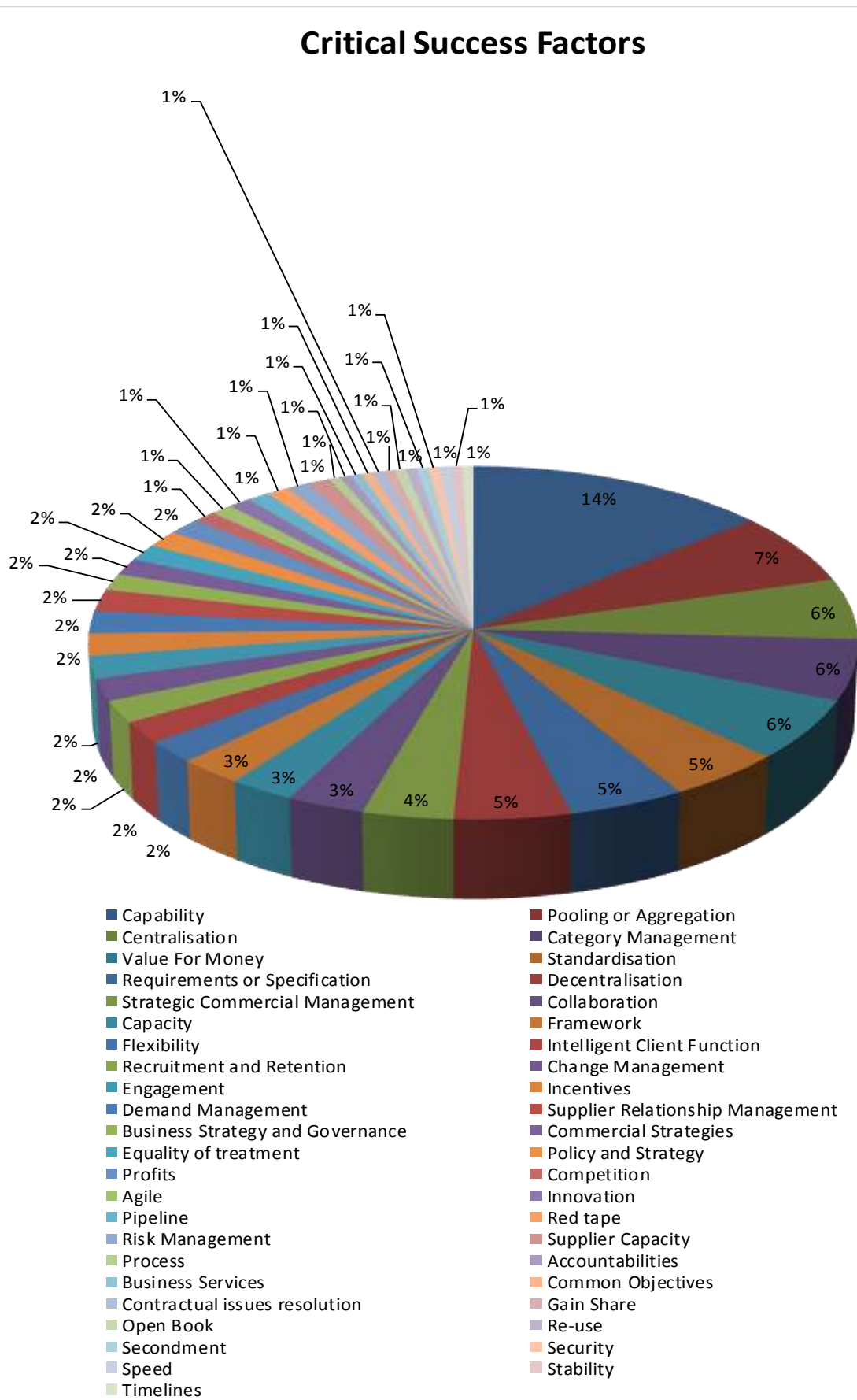


Figure 5.1: Weighting of Critical Success Factors

5.4 Analysis

Using the NVivo version 11 Word Frequency Query i.e. the frequently occurring words in the data set, the following word frequency chart displayed in Figure 5.2 was generated. There are justifiably some words such as requirements, frameworks, centralisation, capacity, engagement, capability, category management, change, strategy, etc. which forms the core of the NVivo analysis. These will now be analysed in greater detail.



Figure 5.2: NVivo critical success factor word frequency query

5.4.1 Analysis of Critical Success Factors

Critical success factors are seen as those areas where results if satisfactory, will ensure the successful competitive performance of organisations. They are therefore those activities or factors that are required to ensure the success of organisations (Neely, 2008 and Martinez et al., 2016). Therefore in determining which of the identified success factors are critical, this analysis of the critical success factors will be limited to the top twenty identified themes and concepts. These factors will be described as those critical success factors that Government will require for it to successfully implement the best performing procurement approach and therefore lead to the delivery and retention of created value. This analysis assumes that there is a relationship between the selected critical success factors. It adopts a similar

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approach to that which was utilised in Martinez et al. (2016) by discussing why the identified factors are critical, what they entail and the steps required to achieve success.

The selected critical success factors has been limited to the top twenty identified success factors with a minimum of 4 references as coded in the Nvivo analysis and these are in order of weighted importance capability, pooling or aggregation, centralisation, category management, value for money, standardisation, requirements or specification, decentralisation, strategic commercial management, collaboration, capacity, framework, flexibility, intelligent client function, recruitment and retention, change management, engagement, incentives, demand management and supplier relationship management. Each of these factors will be clustered and analysed in line with the 6 groups of factors identified previously.

Human	Process	Institutional	Strategic	Cross-domain	Operational
Capability	Pooling or Aggregation	Centralisation	Value for Money	Category Management	Standardisation
Capacity	Change Management	Decentralisation	Framework	Strategic Commercial Management	Requirements or Specification
Engagement	Flexibility	Recruitment and Retention	Supplier Relationship Management	Collaboration	Demand Management
		Incentives		Intelligent Client Function	

To assist with the reporting and translation of some of the responses from the survey, pre-designated identifiers were assigned and coded to each respondent, these are identified in Tables 5.3 and 5.4 respectively. These identifiers begin with 'B' for Government Department Buyers and 'S' for Suppliers of IT Desktop Services to Government. Each of these is then followed by numerical individual identifiers for each of the survey respondents. These identifiers are used in identifying individual statements from survey respondents used below in the 'Responses from Survey' section.

5.5 Human Factors

Defined here as those human capital and people related factors that are deemed important for enabling organisational success. In this study these are identified as capability, capacity, flexibility and engagement.

5.5.1 Capability

Capability is defined in this research as the requisite skills, ability and competences that are required to effectively deliver the UK Government public sector services especially in relation to the procurement of goods and services and also in the management of the UK public sector supply chains.

Why is it critical?

According to the NAO report on 'Transforming Government's contract management' "Government does not have the right people in the right place for contract management. There were gaps between the numbers and capability of staff allocated to contract management and the level actually required" (NAO, 2014: 9). This assertion clearly indicates that there is an issue with the capacity and capability deployed by Government in delivering its contract management responsibilities. Capability sits at the core of the organisational (private or public sector) requirements for it to achieve significant success. The procurement of the UK Government Services requires the skills and capability of those Government Officials who are entrusted with the disbursement of tax payers' money for the delivery of citizen centric services. Very often the supplier organisation has highly skilled, capable, experienced, more senior and well remunerated staff when compared to the Government Officials with whom they have to negotiate multi-million pound contracts. This significantly disadvantages the Government Official as they are potentially at a material disadvantage from a skills and knowledge perspective in the negotiation relationship. If unchecked this could lead to the loss of value. The need to attract the most capable people into Government Departments is a critical success factor if improved value is to be created and if those already created are to be protected. The private sector organisation does however offer a

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better proposition for highly skilled and capable people as they are able to attract and retain the best talent because “the war for talent is endless, with intense inter-firm competition for skilled and capable people” (Martinez et al., 2016: 5).

Capability is described in the NVivo analysis as containing references by questionnaire respondents to relevant and appropriate professional skills, competence and capability of Government Officials. It had 27 references coded which represents 23.08% coverage of the entire survey sample with n=35. This was by far the highest and most important scoring/coded critical success factor identified by the questionnaire respondents which is made up of 28 Government Officials across 3 major Government Departments (The Ministry of Justice, Her Majesty Revenue and Custom and the Department for Work and Pensions and seven supplier responses from Hewlett Packard (HP), Atos Origin, Fujitsu, Steria, Specialist Computer Centre (SCC)).

Responses from the Survey

Some of the survey responses identified specific capability related themes that are required from individual Government Departments as ‘the recruitment and retention of highly capable and qualified staff (B4 & B23), having and developing key and deep skills critical to holding suppliers to account (B5), highly trained and motivated procurement experts (B6), hiring and retaining highly capable staff (B8)’. Other identified capability related themes are ‘skilled procurement professionals (B9), having an in depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise (B10), development in current staff - not just training but providing opportunities for broadening an individual’s experience (B11)’. They also identified that Government requires ‘skilled and competent people in procurement and contract management (B22), training beyond CIPS Qualification, e.g. negotiation skills (B25), project management (B25), the retention of capable and qualified staff (S5)’. One of the respondents indicated that ‘I have worked with Government

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officials for the past 10-years and on occasions the capability of staff involved has been questionable (S5)'.

These capability related responses can be summarised as the need for sufficient capacity and capability, the recruitment and retention of highly capable, skilled and qualified staff, the deployment of deep skills to hold suppliers to account and ensure that real value is secured from large scale and complex contracts. Having an in depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise), the need for buyers to have a thorough knowledge of the services they are procuring in order to mitigate and each Government Department having its own skilled technical and commercial people. Other capability related themes identified by respondents are that Government Departments lack highly trained and motivated procurement experts.

What they entail

Capability as a critical success factor entails having more of the right skills and high calibre of staff by Government Departments and the interface supplier organisations, the appropriate representation of highly skilled and capable staff representing Government to ensure the appropriate contribution to the value creation and retention process. To do this, it is important to understand the skill gaps that exists and for which appropriate learning and development interventions should be targeted. This can be achieved through the development of a procurement competency framework or capability review against which an action plan has to be developed and implemented for capability augmentation.

The steps required to achieve success

In order to achieve success Government Departments should invest in the development of existing staff and this should not simply be limited to training but also the provision of opportunities for broadening an individual's experience, more use of secondments between departments both for incumbents and as part of the Procurement Management Development Scheme (Procurement Graduate Management Programme). Other identified themes on

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steps that are required to achieve success are the availability of highly capable staff within Government Departments, the availability of highly skilled and capable staff from both Government and Suppliers with a deep understanding of the commercial models to ensure full cost optimisation, manage the supplier relationship and improve value. The survey also identified the need to create a knowledge zone or best practice sharing in order and the setting up of a governance structure that allows this to be shared and leveraged across Government Departments.

It is equally important that skilled, capable and competent professional people in procurement and contract management are recruited and retained. For their developmental training to go beyond the Chartered Institute of Purchasing and Supply (CIPS) qualifications and for this to extend to professional training in areas such as, but not limited to negotiation skills, project management, stakeholder management, risk management, open book and other procurement related learning and development. The setup of the Government Commercial Function in the Cabinet Office is expected to focus on developing Government's commercial capability through the recruitment of senior specialists, skills assessment and development of existing staff, (Nao.org.uk, 2016: 7).

5.5.2 Capacity

Capacity here refers to the number of highly skilled and capable resources available to UK Government Department for the effective and efficient management of the delivery of public sector procurement requirements and the supporting supply chains.

Why is it critical?

Capacity is a critical success factor because the UK Government should ensure that Government Departments has adequate (sufficient) and professionally capable resources to deliver its numerous objectives, strategies and policies. As a consequence of the numerous civil service cuts which includes employee reductions as part of the Spending Review Settlements with Her Majesty's Treasury, Government Departments are often left with much

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reduced capacity to deliver an ever growing work programme. Given the pressure on resources, the requirement to do more with less and the intense competition to attract and retain talent amongst Government Departments and with private sector organisations, the battle to attract and retain skilled and capable people within Government Departments has to be mitigated if additional value is to be created and retained. Significant value creation and retention can be impacted due to the lack of sufficient capacity to effectively manage the totality of the procurement and management of goods and services to Government. In this study capacity contains references by questionnaire respondents to the capacity of Government Officials to manage and deliver effective Commercial Management. It has 5 coded references which represents 4.27% coverage of the total coded responses on NVivo.

Responses from the survey

The following responses were coded to capacity 'sufficient capacity and capability (B1), speed to market and speed to service award (B15), ... whether the Department has the skills and capacity to manage the volume and complexity of these negotiations (B2o) and it would also be good to see more Government staff rather than contractors (B12o)'.

What they entail

It entails the availability of sufficient capacity and capability (complex skills) for the procurement and management of Government Contracts. It also requires the retained capacity within Government Departments to ensure that appropriate capacity and capability is made available for delivering procurement activities at pace (speed to market) and for managing the service and contract award including variations to contracts.

The steps required to achieve success

It requires the provision of highly skilled capacity to effectively and efficiently manage and negotiate the increased volume and complexity of contracts, commercial and supplier relationships across Government. It requires less reliance on contractor staff in place of

Government staff in the delivery and management of Government Contracts. As indicated in Martinez et al., “appropriate governance structures, resources, customer engagement activities and service processes are all critical to success and all need to be put in place so that they can run in parallel and coordination with one another” (Martinez et al., 2016: 4).

5.5.3 Engagement

Engagement in this research refers to market engagement and denotes the ability of Government Department Officials to access the capability and capacity of the supplier markets that are available to them. It includes the use of market intelligence including supplier innovation to drive the development of goods and services for the UK public sector.

Why is it critical?

Engagement is a critical success factor because it is important for Government Officials to engage with the market place early in the procurement process in order to gain an understanding of the market capability and capacity to engage with the delivery of its requirements. Similarly, market intelligence and insight will help inform the development of requirements and specification as well as the payment methodology to be adopted e.g. output or outcome based pricing. Such early engagements will provide an opportunity for suppliers to interact with Government Officials in order to clarify its requirements but more importantly for Government to gain the level of interests in its procurement and elicit the supplier's commitment to tender. Engagement in this study contains references by questionnaire respondents to early engagement with suppliers. It has 4 coded responses which represent 3.42% coverage of the coded responses.

Responses from the survey

The following responses were coded to engagement – ‘making decisions early about scope of service requirements taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best) (B6) and speed to market and speed to service award (B15)’. Other comments from respondents are ‘pre-procurement

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engagement with Suppliers to promote Supplier Relationship Management (SRM) from the outset (B22) and we have seen our own engagement with HMRC change throughout the life of our contract - going from direct interaction to becoming a sub-contractor to ASPIRE and this has a material impact on the engagement and experience reflected (B12o)'.

What they entail

It entails making decisions early about the scope of service requirements, taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best), ensuring speed to market (procurement) and speed to service award (contract award). It also entails early and continuous engagement with the market including the incumbent and all potential suppliers to maintain access to innovation, new product or service development and also to gain the suppliers' interests in the goods or services being procured or contracted for.

The steps required to achieve success

It requires pre-procurement engagement with suppliers to promote Supplier Relationship Management (SRM) from the outset. Suppliers in one of the responses to this survey on critical success factors identified that they have seen their engagement with Government change throughout the life of their contract, going from direct interaction to becoming a sub-contractor and this has a material impact on the engagement and experience. It is therefore important to ensure that both Government Officials and their suppliers remain fully engaged throughout the procurement and contract management lifecycle to ensure that appropriate value is created and retained.

5.6 Process Factors

These are those internal process decisions which allows an organisation to effectively decide how best to organise itself and manage its portfolio of change. In this research it includes such factors as pooling or aggregation, change management and flexibility.

5.6.1 Pooling or Aggregation

Pooling or Aggregation refers to the grouping together of the UK Government Department's combinable demand or business volumes to increase the effective bargaining power of Government as a buyer. This definition also extends to the joint exploitation of invested assets by all Government Departments as shared and leverage able assets.

Why is it critical?

The effective pooling or aggregation of the UK Government collective buying power across Government Departments and agencies or even within a subset of Government Departments who has common infrastructure, service or demand requirements will provide additional procurement leverage in value creation and retention. Similarly the consolidation of Government's collective requirements for those goods and services that are common across all Government Departments and agencies will in effect deliver the consolidation of requirements, bundling and rationalisation of the supply base and ultimately better prices, improved quality, optimum service and enhanced delivery. Hughes and Day suggested that "properly leveraging cross-government category spend, consolidating volumes into procurement hubs, back-office rationalisation and shared services are rapidly becoming features of the public sector commercial landscape, and demonstrate the potential for restructuring operating models in procurement" (Hughes & Day, 2011: 14).

It is important therefore for Government to promote the benefits of Inter and intra-departmental aggregation; shared services; procurement hubs; merger of small procurement points; and consolidated volumes (Hughes & Day, 2011: 13). Over time Government has invested in a number of assets that can be leveraged across multiple Departments and it continues to make unstructured, uncoordinated and disparate investments in assets that could be jointly exploited by the wider public and private sector organisations.

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The ability of individual Government Departments to make infrastructural investments without due consideration given to the existence of similar assets or requirements elsewhere in Government has also led to the proliferation of duplicated assets throughout the UK Government estate. It is therefore crucially important that collaboration across government is adopted either through pooling or aggregation to ensure that nugatory investments are avoided and better exploitation of invested assets across Government is encouraged to enhance value creation and retention. Pooling or aggregation is therefore a critical success factor as its effective deployment will deliver significant savings through the exploitation of the collective bargaining power of Government as a buyer.

In this study pooling or aggregation is described in the NVivo analysis as containing references by questionnaire respondents to the pooling and aggregation of requirements, assets and demand. This was the second highest scoring/coded critical success factor with 13 coded references representing 11.10% coverage.

Responses from the Survey

The responses identified the following related pooling and aggregation themes – the use of ‘pan Government contracts (B9), ability and willingness for Government Departments to work collectively (B15), cross government standardisation/commoditisation of requirement (B20), pan-Government deals with Supplier's - purchase as the Crown for the Crown has scale = best possible pricing (B21)’. Other identified themes are – ‘pan-Government asset databases is maintained to enable sharing of spares across the departments’ i.e. surplus software licenses/standard kit (B21), if terms prevent re-distribution, then negotiate that flexibility into any pan-Gov / MOU's with the Suppliers (B21)’. The survey also identified the following additional themes related to pooling and aggregation – ‘aggregation of demand for commodity products and services e.g. travel tickets, compromise, as far as possible standardise products and services across government (B23), the creation of pan-Government procurement functions and frameworks (e.g. G-Cloud) to provide centralised

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and flexible procurement (S3)'. It identified the 'need to consolidate more procurement exercises as its currently being run for each individual government body meaning best value and practices are not gained (S4) and getting the balance right (S13)'.

In summary the survey identified themes such as the development of pan Government contracts, Government Departments working collectively with major Departments leading in their spheres of competence/expertise, cross government standardisation and commoditisation requirements and the use of the centre of Government e.g. the Crown Commercial Service in buying common goods and services for all Government Departments. The survey also identified further themes that Government need to do in order to create and retain added value by jointly utilising and re-using invested assets such as Software across all of Government and negotiating flexible deals with providers open to other Government Departments for exploitation.

What they entail

Pooling or Aggregation as a critical success factor requires the joint and collective effort of Government Departments to effectively collaborate with each other. It also requires a level of standardisation of requirements in such a way that they can be consolidated into definable service streams.

The steps required to achieve success

In order for Government Departments to effectively and efficiently pool or aggregate their demand, there has to be a willingness and agreement by the Centre of Government (Cabinet Office and Her Majesty's Treasury), Government Departments, Agencies and other public bodies to develop and agree the basis upon which demand and requirements can be pooled. The Centre can create centres of excellence across the UK Public Sector with those Departments who has the core skills, capability and critical mass (business volumes) leading and creating pan government contracts and frameworks for use by others e.g. the HMRC

leading the Government Banking Service for all of Government. Similarly, the Centre can consolidate the procurement of all common goods and services to the Centre as it is the case with the Crown Commercial Service buying such services as Print, Post, Document Management, Business Travel, Professional Services, Research, Communications and others for all of Government. However, services and requirements that are unique to individual Government Departments should be left to them to continue to deliver but seeking to collaborate with others wherever possible in developing innovative and collegiate propositions for the market place.

5.6.2 Change Management

Change Management refers to the ability of UK Government Department Officials to manage the attendant change and variation orders that follow the completion of the procurement process and contract delivery often with poorly specified requirements.

Why is it critical?

Change Management is critical in Government Procurement and Commercial Management because Government Departments often cannot fully specify their total requirements prior to commencing the procurement process. This leads to significant post preferred bidder clarification thus driving additional costs and value attrition. It also manifests itself through variation orders or change requests to contracts during contract finalisation and right through to implementation and management for additional scope or scope clarifications. Change management has 4 coded references which represent 3.42% coverage of the total coded responses.

Responses from the survey

The following responses were coded to change management 'delivery of change and improved business services (B15), cultural alignment (B19), fully documented contract clarifications, changes, variations etc. (B22) and common culture (B25)'.

What they entail

It entails the delivery of change and improved business services, cultural alignment, fully documented contract clarifications and processes, change and variation process, etc. and the development of a common culture. It also entails the development of a robust specification that covers all or a significant proportion of the procurement requirements prior to issuing the procurement tender for quotation. This will minimise any additional cost creep that could arise through the execution of the change request or variation order process either during the procurement exercise or during contract implementation.

The steps required to achieve success

Government Contracts should contain fully scoped and specified change management provisions to ensure that the processes for managing and effecting change are fully understood by all parties. Prior to commencing any procurement, the full scope of the procurement activity including the definition of all known requirements at the time and any identifiable supplier or process integration requirements should be fully defined in the specification and negotiated into the contract. Where such issues cannot be pre-determined, some agreed assumptions with appropriate costs should be developed to ensure full transparency of costs in the event that the assumptions materialises during contract implementation.

5.6.3 Flexibility

Flexibility in this research refers to the ability to determine when its best to centralise or decentralise the procurement of the UK Government supply chain solutions. It extends to the determination of what is situated in the centre of Government and what is devolved to individual Government Departments.

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Why is it critical?

Flexibility is a critical success factor because it is important for Government to allow significant flexibilities in the determination of when and what to centralise and when and what to delegate to Government Departments. This is important because there are unique commercial activities such as Employment, Health, Armoured Vehicles, and Tax Collection categories of spend which are best suited to individual Government Departments with significant capability and business volumes to manage their respective expenditure in these areas rather than as a centralised activity. Flexibility in this context contains references by questionnaire respondents to recognising when to centralise and when to defer to Government Departments including the use of Small Medium Enterprise (SMEs) and third sector or charitable organisations. It has 4 coded references which represent 3.42% coverage of the total coded responses.

Responses from the survey

The following responses were coded to flexibility 'it is important to recognise where Departmental interests coincide and where they diverge (B5). Centralisation and scale does not necessarily deliver value or efficiency if the single solutions lacks the flexibility to meet diverse (and sometimes fast changing) requirements (B5)'. Other comments are 'a move to a more flexible approach where local procurement can be applied ensuring SMEs have an opportunity to work with the public sector (B11) and the creation of a pan Government centralised and flexible procurement function, flexible and leverage able'.

What they entail

It is important to recognise where Departmental interests coincide (centralisation) and where they do not (de-centralisation). Centralisation and scale does not necessarily deliver value or efficiency if the single solution lacks the flexibility to meet diverse (and sometimes fast changing) requirements. It entails the appropriate delegation of procurement management authorities and responsibilities to individual public sector bodies to manage those categories

of spend which are unique to them and for which they have significant collateral to negotiate better value delivery and retention outcomes.

The steps required to achieve success

It is important that Government empowers the pan Government centralised procurement organisation (the Crown Commercial Service) to develop flexible, value adding and easily accessible arrangements for use by Government Departments. It is equally important that a more flexible approach is adopted where local or delegated procurement to individual Government Departments can be applied. This will ensure that the right sets of supplier capabilities, innovation and access to SME's can be appropriately enables for the creation and retention of added value within the public sector.

5.7 Institutional Factors

These are those factors which affects both the Centre of Government, the respective Government Departments and in some instances their providers in making priority procurement channel and capacity decisions. It includes such factors as centralisation, decentralisation, recruitment and retention and incentives.

5.7.1 Centralisation

Centralisation here means the concentration of the buying authority for specified common or unique categories of spend in the buying centre or through other authorities who has enough buying power to buy on behalf of other Government Departments.

Why is it critical?

Centralisation is critical for the successful implementation of the best performing procurement approach across the UK Public Sector because it offers up the possibilities of increased aggregation, collaboration, joint asset exploitation, common and standardised systems and solutions. Additionally it provides an opportunity for leveraging the whole of Government Commercial/Procurement capability whilst at the same time centralising the

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procurement of those goods and services that are deemed to be common across the UK Public Sector. In this analysis, centralisation is described as containing references by questionnaire respondents to the centralisation of procurements and requirements fulfilment. It has 11 coded references which represent 9.39% coverage.

Responses from the survey

Some of the themes identified under centralisation are to 'aim for standard specifications where possible (B3), centralised procurement must balance VFM with customer service and be really accountable for delivering savings (B3), use the model of the G-Cloud Cloud Store (B18), make best use of suppliers available through centrally managed framework where best price is achieved (B18) and cross government standardisation/commoditisation of requirement (B20)'. Other identified themes are 'pan-Government deals with Supplier's – purchase as the Crown for the Crown has scale = best possible pricing, pan-Government asset databases is maintained to enable sharing of spares across the departments i.e. surplus software licenses/standard kit (B21)'. Other responses are 'the creation of a pan Government Centralised and flexible Procurement Function (B26), the vestment of the Procurement Buying Authority on a Centralised Procurement Authority (B26), the creation of pan-Government procurement functions and frameworks (e.g. G-Cloud) to provide centralises and flexible procurement (S3)'. Some of the respondents stated the 'need to consolidate more procurement exercises as its currently being run for each individual government body meaning best value and practices are not gained (S4), getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate (S13)'.

What they entail

To successfully achieve the centralisation of the UK Government procurement of goods and services, will require the creation of a centralised pan government procurement team and/or the setup of procurement centres of excellence that are ideally located with those

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Government Departments where the majority of this expertise sits. The creation of a pan Government centralised and flexible procurement function and/or the vestment of the procurement buying authority on a centralised procurement authority. These centralised procurement services must adopt the use of standardised specifications and requirements bundling with a clear focus and accountability for delivering value for money and good customer service within a flexible structure.

The steps required to achieve success

For public sector organisations to be successful in adopting these principles, they must ensure the availability of common procurement systems and solutions such as G-Cloud (Government Cloud Store) where all Government Departments can effectively compete their requirements within a pre-established and flexible procurement market place. They must create centrally managed procurement frameworks or contracts where best price is achieved and requirements cross government are standardised or commoditised. Government must aim to purchase as the Crown in order to effectively leverage the scale and collective buying power that it has. The centre e.g. the Crown Commercial Service and each of the subscribing Government Departments must have highly skilled technical and commercial people with access to a pool of highly capable suppliers for enabling innovation and value creation. Procurement exercises across multiple Government Departments with similar requirements should be consolidated to create best value, improve collaboration, develop common supplier solutions, reduce investment and the procurement process related costs and achieve the harmonisation of solutions across government. This should ultimately lead to the creation of shared assets and pan-Government asset databases that will enable sharing across Departments.

Centralisation also implies a level of procurement collaboration amongst and within Government Departments. Procurement collaboration in this context is seen as “two or more buying organisations working together, pooling knowledge and purchasing power, to

increase buyer-side leverage in the market and/or to deliver other economies (Meehan et al., 2016). Such collaboration can deliver significant business benefits through reductions in prices and lower transaction costs. It can also enable the exchange and inter change of resources, capability, capacity and knowledge across Government Departments whilst delivering enhancements and the optimisation of procurement processes and hierarchies (Schotanus et al., 2011, Dunleavy et al., 2006).

5.7.2 Decentralisation

Decentralisation in this research means the granting of delegated authority to individual Government Departments for the effective and efficient discharge of their primary supply chain delivery activities for those categories of spend where they have significant buying powers or where the required goods and services are unique to them.

Why is it critical?

Decentralisation is critical because it aligns Government Department's procurement solutions to Departments' delivery objectives under their delegated authority. It also recognises the responsibility of each Department to conduct their procurement activities and contract management where the services being procured are unique to those Departments e.g. Health and Employment Programmes within the Department for Work and Pensions. In this study, decentralisation contains references by questionnaire respondents to the independence of Government Departments from central control i.e. from the Cabinet Office or from such other central controlled frameworks and or governance that might be put in place from time to time. It has 9 coded references with 7.69% over all coverage from all the coded responses.

Responses from the survey

The following responses were coded to decentralisation – 'whilst there is merit in a centralised pan government team, I think there would be destruct from Departments as there

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would not be any business context applied (B2), it is important to recognise where Departmental interests coincide and where they diverge, centralisation and scale does not necessarily deliver value or efficiency if the single solutions lacks the flexibility to meet diverse (and sometimes fast changing) requirements (B5)'. Other responses are 'Cabinet Office need to leave the procurement to GPS (CCS) and the Public Bodies (B17), where individual departments have a large requirement, the ability to do a 'one-off' deal - financial year ends, size, timing etc. are a reality of procurement (B17) and each department needs its own skilled technical and commercial people (B18)'. The following additional responses were also coded to decentralisation – 'developing the skills sets needed in each department, rather than a central function but with a knowledge zone or some type of best practice sharing so that knowledge could be passed between people working in different departments (B21)'. Other comments are 'centralisation can mean too great a distance from the business and customers'. It can also mean 'savings claimed are not real - centre does not hold the budget (B10) and getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique) needs of the individual government department that is procuring the service (S13)'.

What they entail

It entails the recognition of the application of localised business context to procurement decisions especially in the context of specialist procurement categories where the core expertise only sit with one or a few Government Departments. It also entails the recognition that a single solution may not be workable across all Government Departments and therefore the need to consider decentralising aspects of the procurement and delivery portfolio may be more pragmatic and practical rather than centralisation. It ensure that where individual Government Departments or a cross section of them has scale, that this is recognised and where appropriate the right decentralisation delegations are adopted in order to best leverage the scale at source.

The steps required to achieve success

Government Departments will have to develop the appropriate skill set required in each Department, rather than rely on a central function but with a knowledge zone and best practice sharing so that knowledge could be passed between different departments. The business users and customers will have to be brought into the decentralised spend area to ensure their input into the requirements and specification definition truly enables value creation and retention. The right balance must be achieved between leveraging central / pan-government procurement initiatives where appropriate and the need to meet the specific (and in some circumstances, unique) requirements of individual government departments that is procuring the service in order for this to create even better value.

5.7.3 Recruitment and Retention

Recruitment and retention refers to the ability of UK Government Departments to attract, recruit and retain highly skilled and professional resources with the capability of managing the delivery of its supply chain solutions.

Why is it critical?

Recruitment and Retention is a critical success factor because it constitutes one of the fundamental aspects of delivering and managing effective procurements and contracts. It is important that Government Departments can recruit and retain highly capable staff in order for it to be able to negotiate and deliver high performing contracts with improved value for money. Similarly retaining the knowledge of the contract and ensuring that the respective obligations set out at the onset are effectively managed and delivered and where this is not the case, that effective performance incentives are enabled as appropriate mitigations for contract default. Recruitment and retention contains references by questionnaire respondents to effective recruitment and retention of skilled, qualified and competent staff. It has 4 coded references which represent 3.42% coverage of the total coded responses.

Responses from the survey

Recruitment and retention has the following coded responses ‘the recruitment and retention of highly capable and qualified staff and continuity of staff on both sides (B4 & B23)’. A respondent also provided the following comment ‘I have worked with Government officials for the past 10-years and on occasions the capability of staff involved has been questionable’ (S5).

What they entail

It entails the recruitment and retention of highly capable and qualified staff and the continuity of staff by Government and its Suppliers to ensure effective contract management and value delivery.

The steps required to achieve success

Government must invest in the recruitment of highly capable, competent and professional staff in order to be best placed to manage some of the suppliers who have already invested in very senior and highly capable and competent staff with whom Government Officials have to interface and negotiate contracts. Similarly, significant incentives have to be made available to highly capable and competent Government Officials including pay remunerations that are comparable to those in the private sector/supply organisations, opportunities to working on challenging and exciting projects, appropriate delegations of authority to be able to exercise own judgement devoid of bureaucracy, career advancement and promotion opportunities and learning and development opportunities.

5.7.4 Incentives

Incentives here have a twofold meaning. Firstly it refers to the use of performance incentives by Government Departments and their suppliers to ensure that contracted obligations, key or critical performance indicators and service level agreements are delivered including the use of appropriate gain/pain share mechanisms. These incentives acts as motivators that help

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drive improved service delivery. Secondly, it refers to the underlying profit maximisation incentive for the supplier to drive up increased revenue, the return on investment and ultimately the overall profitability of their respective organisations. This inclination for profit maximisation if unchecked can lead to degradation in the overall service performance on the part of the supplier and also to a lack of trust and confidence from Government Department Officials.

Why is it critical?

The use of performance incentives in managing compliance and ensuring the delivery of contracted objectives in the provision of goods and services to Government is a critical success factor if value is to be created and retained. Performance incentives act as an enabler for Government in getting its suppliers to deliver on their contracted obligations following a service or delivery failure. This can be deployed through service credits designed to ensure that pre-contracted key performance indicators are maintained and where there is a failure, the supplier is required to make good the defect through service credit payments. Conversely, suppliers of goods and services to Government are also incentivised by their respective organisations to maximise the return on investment from Government Contracts. It is therefore important that Government Officials understand and consent to the overall supplier profit margins that are chargeable on any of their contracts. Significant commercial controls and levers including open book provisions should be pre-agreed to ensure a degree of cost transparency. It contains references by questionnaire respondents to the use of Contract Incentives to drive performance and has 4 coded responses which represent 3.42% coverage of the overall coded responses.

Responses from the survey

The following represents the responses coded to incentives - 'penalties and incentives that govern performance are detailed in our Desktop Contracts (B13), incentivise Suppliers to maximise value opportunities (B21), contract clarity including definitions, description of

services, delivery, performance, penalties, partnering (B22), considering innovative ways of paying for services and sharing benefits with suppliers where such benefits have been jointly realised (S16)'.

What they entail

It entails the inclusion in Government contracts of appropriate performance incentives that ensures the delivery of contracted obligations including key performance indicators and service delivery. Conversely the supplier is motivated and incentivised to continue to deliver enhanced service delivery by the return on investment and profit margins they are able to make on the services they deliver to Government. Therefore profit maximisation becomes an incentive for the supplier to continue to support Government in creating and retaining added value. Incentives can also be accrued through the application of gain share mechanism by allowing both Government and its suppliers to jointly share, based on a pre-agreed gain-share formula from any value that may have been created from a joint enterprise.

The steps required to achieve success

In order to achieve success, Government contracts must have performance incentives that govern supplier performance and service delivery. It requires contract clarity including requirements definitions, description of services, delivery objectives, key performance indicators, performance incentives measures and cost transparency as mitigations for failed or compromised delivery against which service credits can be claimed.

5.8 Strategic Factors

These are those strategic procurement decisions, challenges and engagements that Government Departments are engaged on in order to deliver their core objectives. They include factors such as value for money, framework and supplier relationship management.

5.8.1 Value for Money (VFM)

Value for money here refers to the optimal use of the UK Governments resources for the procurement of goods and services to enable the delivery of public services. It involves the most advantageous, effective and efficient combination of costs, quality and delivery to meet the requirements of the UK Public Sector and Government Departments.

Why is it critical

Value for money is a critical success factor in most organisations and even more so in the UK public sector. The drive for efficiency and the judicious use of public finances in delivering public services is subject to intense scrutiny from the National Audit Office (NAO), Parliamentary Account Committees (PAC) and other public and private institutions. The delivery of unfunded public programmes has benefitted from the savings generated from other public sector procurement programmes in the past and will continue to do so in the future. Value for money is described in this analysis as containing references by questionnaire respondents to the delivery of savings and efficiency by Government Officials and suppliers of services to government. It had 11 coded references which represents 9.40% total coverage of the coded responses.

Responses from the survey

The following responses were coded to value for money 'select best VFM approach depending on category, some will be public sector wide, some central Government, some department and some local, aim for standard specifications where possible, centralised procurement must balance VFM with customer service and be really accountable for delivering savings (B3)'. Other comments are 'it is widely recognised that competition drives VFM (B12), highly capable staff within the Client organisation which manages the relationship to improve value (B15), radical rethink of our requirements and our service wrapper are critical to us achieving best value for money across the Department for Work and Pensions and across Government (B20)'. Other responses coded to value for money

include 'an in-contract joint task group specifically to drive out innovation, improvements and value for money (B22), I am not sure that our commercial strategies are designed to achieve best value for money (B4o), Government Departments have to stop thinking that their requirements make them special, true cost reduction and value will only be achieved by robust and knowledgeable challenge at the point requirements are being determined (B9o)'. Questionnaire respondents also provided the following additional responses 'my general feeling is that Government Contractors, whether they be directly appointed by individual departments or through mini-competitions from a Framework Agreement, always have the upper hand simply because we are not smart enough in procurement and contract management and we always struggle to drive out value for money and efficiencies when all contractors are interested in is maximising profit (B10o)'.

What they entail

It entails the constitution of a client-side multi-functional and providers' joint task force (partnering or collaboration) specifically to drive out innovation, deliver service improvements and create additional value for money. UK public sector policy and strategy in respect of commercial or procurement provision must be informed by market and supplier intelligence to ensure that significant opportunities are created for the creation, appropriation and retention of additional value. Furthermore, given the extent of public services that have been outsourced and the tendency for long term contracts and or managed services, Government Departments have to stop developing bespoke requirements as a norm and instead consider the use and deployment of commercial off the shelf packages. Real cost reduction and value for money will be achieved through robust and knowledgeable challenge at the point requirements is determined. In essence, value for money is contingent on effective demand management. Public Sector Officials must also curtail or limit the excessive interests that a number of public sector providers pursue in order to deliver more value for money from public sector contracts, curtail their desire to make super normal profits and limit their desire to maximise their shareholder returns from public sector contracts.

The steps required to achieve success

In order to achieve success Government procurement should be category led with a clear focus on delivering value for money. To achieve value for money, the standardisation of requirements and specification wherever possible should be the primary goal. The centralisation of procurement must balance value for money with customer service with real accountability for delivering savings being the primary obligation of those accountable for managing the expenditure. Requirements should be competed in order drive innovation, improve productivity and enhance the appropriation of additional value for money. Government must invest in highly capable and specialist skill set for those responsible for managing the buying function to manage the supplier relationship. This specialist skill set must have a deep understanding of the charging/financial models that governs the contractual/commercial relationships primarily to ensure the maximisation and appropriation of the value and opportunity created from the supply chain. It is also important for public sector Departments to consolidate more procurement exercises across the public sector and with other Government Departments to ensure that best value for money is achieved.

5.8.2 Framework

Framework is defined as an agreement by Government Departments with supply chain partners against which specific call offs or bespoke contracts can be made. It sets out specific terms and conditions, duration and value limits governing the provision of goods and/or services that may be awarded during the life of the agreement.

Why is it critical?

The use of Frameworks amongst Government Departments is quite prevalent and widespread. It allows for quick access by Government Departments to suppliers through pre-competed frameworks containing a shortlist of providers for specified goods or services. It seeks to consolidate Government requirements for specified goods and services by aggregating potential demand and by competing these in order to create additional value for

money with ready to use procurement vehicles. Such frameworks can either be put in place by the Crown Commercial Service for use by all Government Departments or by individual Government Departments with clearly defined scope of services that provides utilisation rights to other Government Departments. According to Hughes and Day, “framework agreements with little compulsion to use them rarely succeed, and the history of national contracting, in both public and private sector, leaves a lot to be desired, the critical lever is active, explicit commitment to drive volume into them, ahead of their creation” (Hughes & Day, 2011: 18). Frameworks in this analysis contain references by questionnaire respondents to the use of frameworks for contracting amongst Government Departments. It has 5 coded references with 4.14% coverage from the coded responses.

Responses from the survey

The following responses were coded to framework ‘easy entry/access to the framework (B17), from the framework ('further competitions' may be the answer sometimes, but not always (B17), use the model of the G-Cloud Cloud Store and ...make best use of suppliers available through centrally managed framework where best price is achieved (B18)’. Other comments are the availability of ‘a robust framework agreement with approved Suppliers (B22) and ... there is a need to ensure any centralised framework strategy is sufficiently flexible as to address the individual departmental services requirements or the resulting output will be higher service integration charges. A range of approved suppliers whose core business is Desktop delivery would reduce costs and ensure success (S1)’.

What they entail

It entails the development of robust Framework Agreements with approved Suppliers that has sufficient scope for Government Departments to utilise for example the G-Cloud Store which is a pan government framework that gives access to Government Departments to a Government Cloud Store to effectively compete their requirements within a pre-defined market place with pre-selected suppliers.

The steps required to achieve success

Centralised frameworks should be sufficiently flexible to address the individual departmental service requirements or the resulting output will be higher service integration charges. The range of approved suppliers on the framework must have sufficient capacity and technical capability with the specified scope being their core business. There must be ease of entry and access to the Framework especially when the framework is intended for use for further competitions. Frameworks must be made relevant with opportunities to deliver increased value for money when compared with existing arrangements. They must also be delivered within the pre-agreed timescales to ensure their currency and fitness for purpose and to prevent the development of alternative sourcing options or the wilful extension of existing contracts often with suboptimal value delivery and retention outcomes.

5.8.3 Supplier Relationship Management (SRM)

Supplier Relationship Management in this research refers to the process through which Government Departments manages and develops their suppliers and leverages the capabilities they have whilst delivering value and reducing supply chain risks. Supplier Relationship Management if adopted properly allows for mutual growth and value creation and is based on trust, open communication and continuous feedback.

Why is it critical?

Supplier relationship management is critical because it provides the basis upon which Government manages its supplier relationships. This can be delivered through the strategic supplier management of high value, strategic and cross cutting suppliers to Government or through individual Government Departments managing their own supplier relationships. The latter will require a level of collaboration with other Government Departments to whom the suppliers provides goods and services. Implementing a supplier relationship management framework will help Government create additional value through post-contract supplier management; supplier improvement projects; lean and six-sigma; cost innovation projects

and remediation of supplier contracts (Hughes & Day 2011: 13). Supplier Relationship Management has 4 coded responses which represent 3.42% coverage of the total coded responses.

Responses from the survey

The following responses were coded to supplier relationship management 'highly capable staff within the Client organisation which manages the relationship to improve value (B15), both sides understanding what the other is trying to achieve and must achieve through the relationship' (B19). Other responses are 'pre-procurement engagement with Suppliers to promote SRM (supplier relationship management) from the outset' (B22).

What they entail

It entails the objective assessment of supplier performance set against a number of pre-agreed metric usually contained in a supplier performance management scorecard which is measured and reported on periodically.

The steps required to achieve success

In order to achieve success Government must have highly capable staff who manages the relationship to improve value. Both Government and its suppliers should have an understanding of what they are trying to achieve through the relationship including which aspects of the relationship will be measured, how, by whom and at what frequency. Government should also consider a reverse customer relationship management approach which provides its suppliers with an appropriate performance relationship management framework to assess Government's performance as a customer.

5.9 Cross Domain Factors

These are those activities that cuts across the entire organisation and requires cross functional engagement. It includes category management, strategic commercial management, collaboration and intelligent client function.

5.9.1 Category Management

Category management in this research refers to the generation of public procurement outcomes that fully meets the required business needs based on cross functional team efforts. It includes the clustering together of categories of spend based on market capacity and capability to deliver. The success of this approach greatly rests on the effective engagement and collaboration of all stakeholders in the management of the specified categories of expenditure.

Why is it critical?

Category management is critical to the successful implementation of the best performing procurement approach primarily because it provides a framework for Government Departments' Procurement groups and service users for making sense of their requirements. It also allows them to intelligently align and augment their internal capacity and capability to what's available from the provider market place. The analysis conducted on the questionnaire responses using NVivo for the category management success factor identified 11 coded references which represents 9.40% coverage of all the success factors considered.

Responses from the survey

Some of the coded responses to category management are as follows 'making decisions early about scope of service requirements (B6), taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best) (B6) and lack of understanding that category management responsibilities are split between IT, Finance and

CD (B7)'. Other comments are 'too often procurement is seen outside of the context of the services required (B10), having an in depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected (B10)'. Questionnaire respondents also provided the following additional responses on category management 'for Desktop services, buyers need to have a thorough knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation (B14), building specific market understanding in buyers and service delivery i.e. ability to see beyond the confines of your current contract (B20)'. Other comments are 'we must stop going out to market before the business has fully understood the requirement, approaching the market before this is done is embarrassing and despite Cabinet Office warning against it - this still happens today, truly stopping this practise will enhance our approach to UK public procurement (B3o)'. Additional coded responses linked to category management are 'Government policy drives strategy, however from a commercial perspective I am not convinced that our policy development is sufficiently informed by market and supplier intelligence and therefore we lose significant opportunities to appropriate additional value within our commercial relationships (B4o)'.

What they entail

It entails making decisions early about scope of service requirements, utilising market insights and intelligence to inform decision making, embedding the end to end category management principles and engaging the Department's cross functional teams as an intelligent customer. Government Procurement Officials will require a good knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation. They must build specific market understanding of the services they are procuring right through to service delivery and contract exit. It also requires Government Officials to critically review and understand their requirements prior to engaging with the provider market.

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Markets and supplier intelligence must be used to inform and drive Government policies and strategies in order to create and appropriate additional value from its commercial relationships with providers. Government Procurement Officials who are responsible for procuring services must also lead the category management activities so as to ensure the delivery of optimal contract implementation outcomes. Procurement Officials must have the requisite technical and procurement professional skills that will enable the buying function to align the organisational expectations to the innovative capability and capacity that is on offer from the provider market. They must be able to adapt and utilise centralised framework solutions flexibly to address the individual departmental service requirements in order to minimise the total acquisition costs.

The steps required to achieve success

Category management responsibilities must extend beyond the traditional boundaries of the procurement function and into other cross functional teams and stakeholder groups in order for it to be truly effective and functional in creating and retaining value. This pre-supposes the creation of the Intelligent Procurement/Intelligent Customer function within Government Departments to enable the optimisation of the collective buying power of Government. It also requires having an in depth knowledge base that includes technical and professional expertise, service delivery expertise, procurement, contract and supplier relationship management expertise and working collaboratively to ensure that Government contracts delivers the required services and expected outcomes.

It is important that stakeholders are engaged and working cross functionally on category related activities. The category team capability should be developed through planned and deliberate learning for the development and implementation of category strategies. Category management processes and toolkits with flexibilities should be developed, deployed and mandated. The developed category plans should seek to leverage supplier capabilities to ensure the delivery of key objectives and benefits within agreed timescales. A successful

delivery will require the embedding of strong project management methodologies and agreed governance around approval points and decision gates. It will require the discipline of driving the delivery of business cases through effective sourcing and supplier management strategies and governance.

5.9.2 Strategic Commercial Management

Strategic Commercial Management is defined here as the cross functional engagement of Officials of Government Departments with contract and commercial management accountabilities including commercial and delivery policy development, implementation and delivery. This creates an environment where the contract and commercial management responsibilities including the management of the total acquisition costs are simply not left to the procurement organisation to manage from cradle to grave.

Why is it critical?

Strategic Commercial Management is a critical success factor because it is one of the core capabilities that will ensure the management and delivery of Government procurement outcomes. Strategic Commercial Management incorporates contract management which the NAO described as not operating as a multi-disciplinary function with often limited interaction between finance, commercial and operational contract management functions (NAO, 2014: 59). This indicates that Contract management in the UK public sector is tactical and transactional rather than strategic. Strategic Commercial Management is described in this context as containing responses by questionnaire respondents to the development and delivery of strategic commercial solutions. It contains 7 coded references and has 5.98% coverage of the total coded responses.

Responses from the survey

The following responses were coded to strategic commercial management – ‘skilled procurement professionals (B9), Intelligent Procurement/Intelligent Customer, too often

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procurement is seen outside of the context of the services required, having an in depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected (B10)'. Other comments are 'for Desktop services, buyers need to have a thorough knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation (B14), building specific market understanding in buyers and service delivery i.e. ability to see beyond the confines of your current contract (B20)'. The following additional responses were also coded to Strategic Commercial Management 'we seem to have recognised the need for Agility and Agile Services within our development programmes but have not carried forward Agile thinking into our commercial strategies and/or commercial vehicles (B4o), it is also recommended that buyers of Desktop services become the category managers to ensure the optimal contract implementation outcomes (B5o)'.

What they entail

It entails the availability of skilled procurement professionals and intelligent procurement/Intelligent customer to ensure that procurement is seen as part of the context of the services required. It requires an in depth knowledge base that includes technical and professional expertise, service delivery and management expertise, procurement and finance expertise working collaboratively to ensure that the contract delivers the services required and expected and at the right price with optimum value for money. Government procurement officials should have a thorough knowledge of the services they are procuring in order to mitigate any disadvantages with suppliers and the risk of exploitation. They must link specific market understanding and insights with the service delivery and service management framework for the services they are required to manage.

The steps required to achieve success

Government procurement officials must embrace strategic commercial management to ensure the delivery of optimal contract implementation outcomes. According to Quayle (2001: 397) “the impact of procurement in government procurement units is driven by the contribution of the function to overall corporate performance and its interface relationships; much has been written about procurement strategy, but the actual impact of procurement strategy on corporate performance in UK government has been neither empirically substantiated nor rigorously examined”. Strategic Commercial Management therefore becomes one of the building blocks for delivering procurement efficiencies to the UK public sector.

5.9.3 Collaboration

Collaboration in this research is defined as those interdependent relationships that exist between and within Government Departments for enabling closer working, the sharing of best practice, output services and the leveraging of common assets.

Why is it critical?

Collaboration as a critical success factor because it is an important element for enabling sharing of value creating opportunities across Government. It contains references by questionnaire respondents to working more closely together and sharing best practice amongst Government Departments. It is critical because it provides a platform that enables collaboration between and amongst Government Departments. It also ensures that the authorities vested in the Crown Commercial Services for the procurement and contract management of common goods and services across Government Departments can be fully exercised through more effective collaborative mechanisms rather than forced or mandated. It has 6 coded references representing 5.13% total coverage of all coded responses in Nvivo.

Responses from the survey

Coded responses to collaboration includes the 'ability and willingness for Government Departments to work collectively (B15), collaboration between departments (B16), in-contract joint task groups to resolve contractual problems (B22), an in-contract joint task group specifically to drive out innovation (B22) and improvements and value for money (B22)'. It also includes 'open and collaborative approach to contract negotiations and subsequent delivery (S11) and recognising the value of innovation, collaboration, partnership and focus on service quality alongside price when evaluating proposals (S15)'.

What they entail

It entails the ability and willingness of Government Departments to work collectively through collaboration and closer working relationships in the procurement and contract management of similar goods and services.

The steps required to achieve success

To achieve success in the creation and retention of value within the UK public sector, Government Departments should seek to create in-contract joint task forces in order to jointly manage common supplier related issues, drive up performance and ensure that the totality of Government leverage is brought to bear in all supplier management relationship discussions. Similarly, specific collaborative joint task groups should be set up to explore and drive innovation, ensure the delivery of service improvements and deliver value for money across the UK public sector.

5.9.4 Intelligent Client Function

Intelligent client function in this research relates to the ability of Government Departments to effectively and efficiently manage the delivery of its contracted services based on a thorough understanding of the overall end-to-end process, total acquisition costs, client and suppliers contracted obligations and the overall procurement lifecycle.

Why is it critical?

Intelligent Client Function is a critical success factor because it is one of the crucial deterministic factors for ensuring that the delivery of contracted services by Government Departments are managed not only by the Procurement Organisation but also by everyone who has a role in the delivery of such services. It contains references by questionnaire respondents to cross functional intelligent client functions within Government Departments to enable effective procurement. It requires the involvement of cross functional teams across the Government buying organisation each contributing different functional and professional expertise for effecting and delivering the procurement. A typical cross functional team in a UK public sector procurement exercise will include representatives from the commercial organisation, operations or delivery organisation, the finance function, legal, risk, audit, technology and human resources representatives and such other groups that are deemed appropriate in relation to the specific procurement exercise. It is not unusual to have supplier representatives as a part of these cross functional teams. This however depends on the stage of the procurement or contract management lifecycle. It has 4 coded responses which represents 3.42% coverage of the overall coded responses.

Responses from the survey

The following responses were coded to intelligent client function 'an intelligent client function in each department - an organisation that understands the technology, services, suppliers, commercial levers (B2) and Intelligent Procurement/Intelligent Customer (B10)'. Other comments includes 'having an in depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected (B10)'. Respondents also provided the following additional comments 'an in-contract joint task group specifically to drive out innovation, improvements and value for money (B22) and access to high quality

staff representing all stakeholder groups within the government department that contribute to the procurement (not just procurement staff) (S10)'.

What they entail

It entails the set-up of an intelligent client function (this could be virtual) to ensure that Government as a client understands the technology, services, suppliers, commercial levers, capacity and capability deployment and key deliverables. The intelligent client function will also act as the voice of all stakeholders who has an interest in the specific procurement or commercial management activity. Government Departments should see procurement and commercial management as part of the whole context of the services required and therefore seek to ensure the cross functional engagement of impacted stakeholders in the delivery of the commercial engagement activity.

The steps required to achieve success

The intelligent client function should have an in depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively to ensure that the contract delivers the services required in time and within an agreed cost envelope. Such a function will also ensure that innovation, service improvements and value for money is delivered as part of the procurement and contract management process whilst keeping the Department safe from any potential risk or procurement/contract litigation.

5.10 Operational Factors

These are those activities that cuts across the operational business units. It includes standardisation, requirements or specification and demand management.

5.10.1 Standardisation

Standardisation refers to the creation of a standard set of requirements, specification, processes and governance with common solutions for the delivery of the UK public sector procurement of goods and services.

Why is it critical?

Standardisation is a critical success factor in the creation and retention of value in the UK public sector. This connotes the deterministic need for Government as a client to standardise its requirements, specification, processes and governance in its dealings with the providers with whom it has contractual relationships for the provision of goods and services. It is critical because through standardisation Government as a buyer can lean its demand for goods and services by standardising its requirements in order to buy more effectively and efficiently. It is also one of the highest rated and coded survey questionnaire responses with 9 coded references which represent 7.69% over all coverage of the coded responses.

Responses from the survey

The following responses were coded to standardisation 'greater standardisation (B1), finally I believe that the desktop service has been overcomplicated to the detriment of bringing in new players to the Government desktop market (B2), industry or category led approach and aim for standard specifications where possible (B3)'. Other comments are 'standardising procurement processes (LEAN) (B9), larger departments have to lead - the idea of a standardised desktop is achievable and has to be desirable - but with the best will in the world a department's size impacts the final price achieved (B17)'. Additional responses coded to standardisation are 'cross government standardisation/commoditisation of requirement, shiniest is not best - no one in government needs anything made by Apple that can't be provided by another vendor more cheaply (B20), compromise, as far as possible standardise products and services across government (B23)'. Other comments includes 'getting the balance right - by leveraging central / pan-government procurement initiatives

where appropriate but not at the expense of meeting the specific (and in some circumstances, unique) needs of the individual government department that is procuring the service' (S13).

What they entail

It entails greater standardisation within and across Government Departments through the stipulation of standardised components or services for the fulfilment of common or similar needs across government. Overtime the public sector demand for goods and services has become overcomplicated through the specification of requirements that favours incumbent providers to the detriment of bringing in new providers and especially Small to Medium Enterprises (SME's), into the public sector market place. It requires the standardisation of procurement processes that are lean and streamlined, devoid of bureaucratic bottlenecks, transparent, fair and equitable.

The steps required to achieve success

In order to achieve standardisation, Government must embed standardisation and commoditisation of requirements across Government Departments. There should be collaboration with other Departments through consolidation and agreement to a set of common standards, specification and solutions to their requirements. Government must get the balance right by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique) needs of individual Government Departments.

5.10.2 Requirements or Specification

Requirements or Specification in this research refers to the definition of the goods or services that UK Government Departments requires from their supply chain partners in order to effectively and efficiently deliver its services.

Why is it critical?

Requirements or Specification is a critical success factor in the UK Public Sector procurement primarily because it underpins the successful delivery of procurement and contract management. Government Departments are often unable to determine or specify their requirements ahead of the initiation of the procurement exercise. Consequently the procurement process is often delayed due to variation and clarification during the procurement exercise to ensure that the actual demand is reflected. Hughes & Day in their paper on 'Why Public Procurement is Central to the UK's Economic Performance...and How to Transform It' identified that anywhere between 40% and 80% of total cost is locked in by the specification, and the design process that precedes it and that therefore "simplifying specifications, removing "gold plating", de-scoping, standardising business requirements, reducing over-design in the first place, buying off-the-shelf wherever possible and putting in place policies to stop multiple variants are all eminently sensible and straightforward" (Hughes & Day, 2011: 13). This assertion although theoretically sensible and straightforward, in practice and within the public sector, the determination of requirements and specifications can be overly complex, difficult to baseline at the beginning of the procurement process and subject to continuous amendments and iterations throughout the procurement process and beyond. The suppliers are also able to reflect their output services against the customer demands and expectations thus leading to higher total acquisition costs. It is therefore critical that all requirements and specifications are firmed up prior to commencing the procurement exercise including all the pricing models, open book provision, change request process, savings methodology etc. Requirements or specification in this study contains references by questionnaire respondents to the simplification and development of requirements/specification prior to the commencement of the procurement exercise. It has 9 coded references which represent 7.66% total coverage of the coded responses.

Responses from the survey

The following questionnaire responses were coded to requirements or specification 'finally I believe that the desktop service has been overcomplicated to the detriment of bringing in new players to the Government desktop market (B2), making decisions early about scope of service requirements taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best) (B6)'. Other responses are 'speed to market and speed to service award (B15), radical rethink of our requirements and our service wrapper are critical to us achieving value for money (B20), shiniest is not best - no one in government needs anything made by Apple that can't be provided by another vendor more cheaply' (B20). The following additional coded responses were coded to requirements or specification 'contract clarity including definitions, description of services, delivery, performance, penalties and partnering (B22)'. Other responses are 'as procurement professionals we must stop going out to market before the business has fully understood the requirement, approaching the market before this is done is embarrassing and despite Cabinet Office warning against it, this still happens today, truly stopping this practise will enhance our approach to UK public procurement (B3o)'. The following comments were provided by respondents 'government departments have to stop thinking that their requirements make them special, true cost reduction and value will only be achieved by robust and knowledgeable challenge at the point requirements are being determined (B9o) and clear requirements with respect to the specific contract being procured (S9)'.

What they entail

This requires Government to simplify and reduce complication, ambiguity and complexity from its requirements or specification in order to attract new providers to compete for the provision of its services. It entails making decisions early about the scope of service requirements utilising market insights and intelligence to inform the specification of goods

and services, facilitating faster procurement process times i.e. speed to market and speed of procurement award.

The steps required to achieve success

In order to achieve success in simplifying requirements and specification, public sector bodies must ensure clarity in their specification including definitions, description of services, delivery and performance with appropriate performance incentives. Procurement should only commence after the requirements and specification are sufficiently defined and prior to the procurement tender being issued to the market. This will enhance Government's approach to UK public procurement, deliver real cost reduction and create added value through robust and knowledgeable challenge at the point requirements are determined.

5.10.3 Demand Management

Demand management in this research refers to the ability of Government Departments to manage their respective requirements. It also includes the configuration of those requirements, the required volumes and any unique preferences that could deviate from the use of commercial off the shelf packages and solutions where appropriate. Unique customisation of requirements and specification often leads to additional costs, hence the need to manage not just the quantity required but also the uniqueness of the demand.

Why is it critical?

Effective demand management is critically important if government is to create and retain value. By managing demand effectively, Government is able to reduce its demand for goods and services, reconfigure its demand, specification and requirements and efficiently reuse some of the components that has previously been invested in. It contains references by questionnaire respondents to effective management of demand and has 4 coded responses which represent 3.42% coverage of the total coded responses.

Responses from the survey

The following represents the responses coded to demand management 'challenging the need to spend (B9) and it is up to public sector to create and shape truly competitive markets for the provision of the services and commodities they require which ensures that they appropriate the value opportunities available through effective "Demand Management" in the true sense of the meaning (B12)'. Other responses are 'developing the skills sets needed in each department, rather than a central function but with a knowledge zone or some type of best practice sharing so that knowledge could be passed between people working in different departments (B21). Additional comments on demand management are 'government departments have to stop thinking that their requirements make them special, true cost reduction and value will only be achieved by robust and knowledgeable challenge at the point requirements are being determined (B9o)'.

What they entail

It entails the effective and efficient management and re-configuration of Government demand for goods and services by challenging the need to spend and also by re-orientating its requirements to what is actually required. It also entails the standardisation of demand within and across Government Departments to ensure effective pooling of demand and the aggregation of vast volumes of spend with significantly reduced supply chain.

The steps required to achieve success

The public sector should create and shape truly competitive markets for the provision of the services and commodities it requires so as to ensure that it can appropriate the value opportunities available through effective demand Management. They should stop developing bespoke solutions for their requirements and ensure robust and knowledgeable challenges at the point requirements are determined.

The critical success factors discussed above do not operate exclusively within their assigned groups only, instead they can influence factors within the same groups or in other groups. Therefore and in line with the findings in Schultz, Slevin and Pinto (1987) the assumption is that a combination of several factors from the different groups might lead to the successful implementation of the best performing procurement approach within the UK public sector.

5.11 Discussion on deliverability of critical success factors and other factors

UK Government Departments has succeeded to varying degrees in deploying a number of the critical success factors and other factors identified and discussed in this research. The establishment of the Professional Buying Organisation such as the Crown Commercial Service (CCS) in 2014 with the remit of consolidating and managing all related expenditure for common goods and services across central government has so far failed to deliver on its mandated objective. According to the NAO, “Government has recognised that it needs to act as one customer to exploit its buying power in the market, and to reduce duplication and inefficiencies in the process. This has led to the creation of the Crown Commercial Service (CCS). CCS is a new organisation with ambitious plans to change how government buys some £15 billion of common goods and services” (Nao.org.uk, 2016: 15).

Whilst recognising that CCS is within its early formative years, its intended remit across the UK Government is nonetheless critical to the achievement of leveraged efficiencies across the UK Public Sector. The consolidation of the managed service spend from a number of Government Departments to CCS has delivered little or no major improvements in the service offer, there are significant issues with customer engagement, very little additional savings are being generated and there has been little or no sign of spend consolidation or aggregation. The transformation and consolidation of the transitioned managed services has also not taken place as CCS continues to manage each of the transitioned and managed expenditure from each Department separately with little or no aggregation.

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The use of centralised frameworks negotiated by CCS offers little more than a convenient vehicle for delivering Government requirements. These frameworks when benchmarked against existing individual Government Departments' existing or expiring arrangements deliver limited or no additional value and at times leads to additional cost increases. Additionally, CCS often fails to deliver framework agreements in time which results in the tactical extensions of existing arrangements often at sub-optimal prices. Given these issues, Government Departments in order to meet their contractual and commercial delivery objectives resorts to running their own procurements rather than rely on the CCS negotiated frameworks.

The process through which pan Government Frameworks are let based on generic requirements that are expected to deliver bespoke requirements for individual Government Departments leaves some of the larger Government Departments seeking more adaptations to these frameworks where possible. These types of procurement approaches is more akin to the transactional procurement approach identified in this study as it reduces the relationships between the providers on the frameworks to a more prescriptive and contract based frameworks. It is also firmly situated in the transaction cost theory where pre-determined costs offers little or no flexibilities for relational total cost of ownership type mutually developed cost model. Additionally, it limits the possibility of the adaptation of individual Government Department's requirements to available innovative solutions from the market place which could be more easily accessed through relational procurement approaches.

At the time of this research CCS are undertaking a wholesale operational review which is expected to materially impact the scope of services it delivers to the UK public sector in respect of its management of common goods and services for Government Departments. The National Audit Office is similarly conducting a review of the CCS operations and its ambit for the delivery of value for money and the expectant efficiency gains forecast and /or reported from the consolidation of common goods and services across the UK public sector.

CHAPTER FIVE – CRITICAL SUCCESS FACTORS

These limitations on the extent to which Government can truly implement some of the identified critical success factors in this study suggests the need for a more concerted commitment on the common causes of contract failure in the way the UK Government implements its transformational objectives. Some of these common causes of contract failure include the lack of or insufficient consultation with participating Government Departments by the Centre (Cabinet Office) prior to the roll out or implementation of transformational procurement ideas. The setup of the CCS and its mandate for the consolidation of Common Goods and Services across Government and the institution of the ISSC2 Shared Service Framework are both examples of how the UK Government (Cabinet Office) rushed through these major Transformational Procurement Programmes with little consultation, limited impacting and very minimal due diligence.

If these common causes of contract failure are remediated, the UK Government should be able to successfully adopt and implement a number of the critical success factors identified in this study. It should also be able to successfully develop, implement and deploy future transformational procurement programmes.

5.12 Framework for value creation and retention

Building on the findings in this research, a framework for the creation and retention of value within the UK public sector procurement is provided in Figure 5.3 below. The framework brings together the different elements of the value creation and retention process that was investigated in this research including procurement approaches (transactional, relational or mixed), shared services and the use of common assets, and the identified critical success factors. The framework also includes how best to leverage the most optimum procurement approach and some connected variables for strategic commercial management as enablers for increased value delivery and retention for the UK Government procurement.

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It provides the basis for procurement policy makers in Government to effectively articulate appropriate strategies and policies that reflects the various components of the framework for effective value creation and retention within UK public sector procurement.

FRAMEWORK FOR VALUE CREATION AND RETENTION

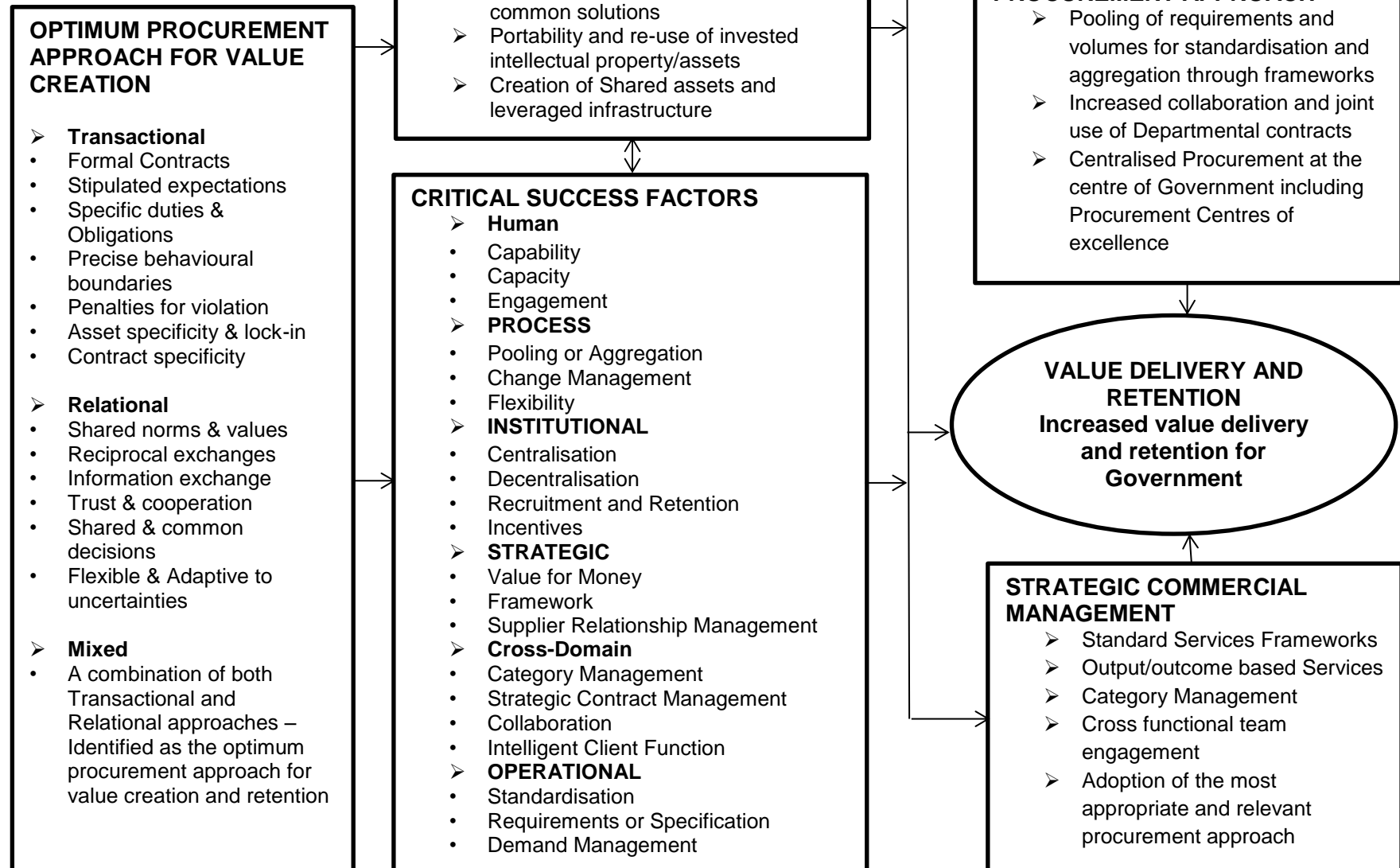


Figure 5.3: Framework for value creation and retention

5.13 Summary of Findings

These findings provides validation for the study's research objective three which is to investigate the critical success factors for implementing the best-performing approach in the UK public procurement. A total of 45 factors were identified from the survey responses of which 25 were deemed to be just other factors on the basis of the frequency or number of references annotated to them using the NVivo analysis and a further 20 were deemed to be success factors. These 20 success factors were further clustered into 6 distinct groups of critical success factors namely human, process, Institutional, strategic, cross-domain and operational. The study assumes that these critical success factors do not operate exclusively within their assigned groups only and that they can influence factors within the same groups or in other groups. There is also an assumption that a combination of several of these factors from the different groups might lead to the successful implementation of the best performing procurement approach within the UK public sector. A summary of the research findings on critical success factors is presented in Table 5.7 below.

Mixed success has been experienced by UK Government Departments to varying degrees in implementing some of the identified critical success and other factors and that Government will be required to remediate the identified common causes of procurement failure in order to successfully engage with and implement a number of the identified critical success factors.

Finally a framework for value creation and retention is presented in figure 5.3 which provides the basis for procurement policy makers in Government to effectively articulate appropriate strategies and policies that reflects the various components of the framework for effective value creation and retention.

Critical Success Factors	
Human Factors Capability Capacity Engagement	Process Factors Pooling or Aggregation Change Management Flexibility
Institutional Factors Centralisation Decentralisation Recruitment and Retention Incentives	Strategic Factors Value for Money Framework Supplier Relationship Management
Cross-domain Factors Category Management Strategic Commercial Management Collaboration Intelligent Client Function	Operational Factors Standardisation Requirements or Specification Demand Management

Table 5.7: Critical success factors and other factors

6 CHAPTER SIX – CONCLUSIONS AND FUTURE WORK

6.1 Distinctive Achievements

As public sector procurement has increasingly become strategically aligned to the delivery of the core public sector business objectives, it has also become much more important that it begins to adopt some of the best approaches in managing complex contracts and procurement provision. This objective can be achieved by focusing on innovative contracting methodologies such as output/outcome based contracting and also through the adoption of appropriate procurement approaches. Achieving this objective requires a shift away from regulated processes such as transactional procurement to a more collaborative and relational procurement with jointly agreed upon common goals or outcomes.

This research is thus predicated on the need to explore optimal procurement approaches described as transactional, relational or a mix of the two in the creation and retention of value within the UK public sector. Johnson et al. (2003: 72) commenting on the limitations and opportunities for further research in their work indicated that “in an era where both public sector and private sector organizations are being challenged to deliver more value, an understanding of different organizational approaches can help identify potential opportunities”. This research builds on gaps identified in the review of existing literature in both public and private sector procurement by demonstrating that the way public sector procurement groups are structured, organised and the procurement approaches they adopt may not lend itself to the delivery of optimal value and value retention.

Whilst the concepts (transactional and relational procurement) remain pervasive in supply chain literature, the way in which public sector organisations are structured, organised and resourced to administer the strategic sourcing and commercial management perspectives remain largely under investigated especially in respect of creating added value and protecting the already created value. The findings in this research are therefore focused on

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plugging these gaps whilst ascertaining appropriate fit, approaches, structures and the extent to which the considered procurement approaches contribute to the creation of added value and the protection of the already created value.

The research findings, analysis and conclusions are primarily based on the following:

- A review of the literature to determine the structure and organisation of public sector procurement groups;
- A survey questionnaire sampling of a cross section of Government Officials from three major Government Departments namely the Department for Work and Pensions, The Ministry of Justice and Her Majesty's revenue and Customs and their suppliers of IT Desktop Services to capture their perceptions;
- A review of the adopted procurement approaches for the creation and retention of value to determine the best, appropriate and optimal approach for value creation and retention;
- Solutions for leveraging the investigated and adopted procurement approaches across the UK public sector and
- The critical success factors for implementing the best performing procurement approach in the UK public procurement.

The first research issue which this research sought to answer is summarised as the structure and organisation of public sector procurement groups will determine their ability to manage highly complex public sector procurement requirements and by implication the supporting supply chains if additional value is to be created and those already created are to be protected from being eroded. This research issue was covered in the review of relevant literature from the three selected Government Departments and concluded that they have either already organised themselves (in the case of DWP) on the relational type contracting methodology based on output pricing and the standard services framework or are developing strategies (in the cases of HMRC & MOJ) to move to a similar approach in the future.

The second research issue being the type of procurement approaches (transactional, relational or a combination of both approaches) adopted by public sector procurement groups is likely to determine their ability to deliver greater value and also protect the erosion of already created value. The conclusions drawn from this research as a response to the investigations of this research issue along with the research objectives is summarised below in the summary conclusions from objectives one, two and three.

6.1.1 Research Objective One

The first objective is to investigate and analyse some of the different procurement methods (transactional or relational) that are adopted within the UK public sector procurement groups so as to determine the extent to which these approaches create added value and protect the erosion of the value already created.

The research identified three different procurement approaches which are identified as transactional, relational and mixed or the combined approach. Transactional methods are seen as competitive or adversarial, open to multiple suppliers, short term in its relationship and driven largely by price. It is characterised as closed, fixed-price competitive bidding, short-term one-off contracts almost always awarded on the basis of the lowest price, detailed contracts; and win-lose negotiations. The research on transactional methods included such variables as contract, opportunism and transactional complexity.

Relational methods in this study included such attributes as trust, commitment, cooperation, dependence and joint problem-solving. Other characteristics identified were longer-term close working relationships between buyer and supplier, sharing of risks and rewards, cooperation, single-supplier, informal contracts; and win-win negotiations. The research investigation on relational methods included such variables as relational norms, trust and personal relationships and duration, where the mixed or combined procurement approach is the combination of both transactional and relational method in the UK public procurement.

Value which is the key factor in this research in determining the best performing approach is seen as something of importance or usefulness, that has some monetary worth or other intrinsic benefits attached to it. It is those benefits that are derivable from the relationships (supply chain or otherwise) between the contracting parties less the total costs of engagement and intrinsically linked to the total cost of ownership and not just the price function. It includes the sacrifices expended for the acquisition and in the creation of the value. It also includes the price; time spent engaging in the procurement process, supplier relationship management, resources deployed on product or service integration and utilisation. Value in this research includes such variables as value for money, discounts, savings, retention, support, result, switching, funding and service.

This research study provides three major and significant findings which are identified below as part of the investigations into objective one under three distinct hypotheses which are as follows.

6.1.1.1 Hypothesis One

Hypothesis one indicates that there is a significant and negative link between the use of transactional procurement approaches a) Contract, b) Opportunism, c) Transactional Complexity and Relationship Performance (Value) in the creation and retention of added value.

The analysis and findings in this research against hypothesis one shows that the use of transactional procurement approaches which incorporates contract, opportunism and transactional complexity delivers less (negative) value when compared to the other procurement approaches that were considered. This finding demonstrates the relevance of transaction cost theory which provides evidence that formal contract tends to emphasise control and legal rules that could signal distrust amongst members which could lead to opportunism and could be used as a mechanism for promoting individual party's private gains.

6.1.1.2 Hypothesis Two

Hypothesis two indicates that there is a significant and positive link between the use of relational procurement approaches a) Relational Norms, b) Trust, c) Personal Relationships and Duration and Relationship Performance (Value).

The analysis and findings in this study shows that the use of relational procurement approaches such as relational norms, trust, personal relationships and duration will deliver better (positive) value when compared to the transactional procurement approach. This finding provides support to relational theory that trust and norms has the possibility of restraining parties from acting opportunistically and out of self-interest.

6.1.1.3 Hypothesis Three

Hypothesis three indicates that there is a significant and positive joint effect on the creation and retention of added value when transactional and relational procurement approaches are combined. This research analysis and findings indicates that there is a significant and positive joint effect on the creation and retention of added value when transactional (contract, opportunism and transactional complexity) and relational (relational norms, trust, personal relationships and duration) procurement approaches are combined. This finding provides further evidence that a combination of transactional procurement methods such as contracts and investments and relational methods such as trust and norms can act as complements in creating and retaining value.

The transactional and relational procurement approaches can be combined primarily by ensuring that appropriate elements of both approaches are combined and utilised in the delivery of contracted services. This can be achieved by combining sophisticatedly written and binding contracts and the use of multiple suppliers (transactional) with trust based long-term procurement relationships where there is effective cooperation, collaboration, information sharing, commitment, interdependence and joint problem-solving (relational).

This research study therefore concludes that the optimum procurement approach that will lead to the creation of improved value and protect its erosion is the combination of the transactional and relational procurement approach in managing the UK Government procurement expenditure. This provides justifiable emphasis on the importance of concurrently and interactively employing both transactional and relational mechanisms together in order to effectively govern buyer–supplier relationship.

6.1.2 Research Objective Two

The second objective is to establish how the evaluated approaches should be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements.

The analysis and findings in respect of objective two shows that the most preferred option for leveraging the evaluated approaches across the UK public sector procurement groups and across various categories is Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation. This was identified as the preferred option by 42.8% of the respondents; the second preferred option being individual Government Departments pooling and aggregating their demand with other Government Departments to create improved leverage and increased value for money with 22.86% selecting this as their preferred option. Creating procurement category management consolidated centres of expertise (centralised procurement at the centre of Government) to enable aggregation and increased value for money delivery was the third preferred option with 20% of the respondents selecting this as an option.

These findings provides validation for the study's research objective 2 which is to establish how the evaluated approaches should be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared

assets, competences and capabilities in the delivery of public sector procurement requirements.

This research study also identified as prompted in the survey questionnaire (see appendix A and B) two additional factors that should be considered in leveraging the evaluated approaches. These are a combination of all the factors identified above, the use of own supply chains by larger Government Departments and for smaller Government Departments pooling via frameworks. Additionally the research study identified the creation of public sector specific markets for commodities and services whereby the Public Sector creates and shapes those specific markets for example the Employment or Health Services Categories at the Department for Work and Pensions.

6.1.3 Research Objective Three

Objective three was to investigate the critical success factors for implementing the best performing procurement approach in the UK public procurement.

A total of 45 factors were identified from the survey responses of which 25 were deemed to be other factors on the basis of the frequency or number of references annotated to them using the NVivo analysis and a further 20 were deemed to be critical success factors. See table 5.7 for the summary table of critical success factors and other factors. The top twenty critical success factors identified in this research are capability, pooling or aggregation, centralisation, category management, value for money, standardisation, requirements or specification, decentralisation, strategic commercial management, collaboration, capacity, framework, flexibility, intelligent client function, recruitment and retention, change management, engagement, incentives, demand management and supplier relationship management.

The study concluded that mixed successes has been experienced by UK Government Departments to varying degrees in implementing some of the identified critical success and other factors and that Government will be required to remediate the identified common

causes of procurement failure in order to successfully engage with and implement a number of the identified critical success factors identified in this study.

These findings provides validation for the study's research objective three which is to investigate the critical success factors in implementing the best-performing approach in the UK public procurement.

6.2 Research Contribution

This research through the exploration of the structure, organisation and configuration of public sector procurement helps provide a better understanding of the need to extend the current capabilities, competences and accountability of the procurement function from transactional and relational to a strategic commercial management function. This will allow the buying centre to be well positioned to provide the effective and efficient management of the supply chain solutions and the supporting systems and structures that underpins it. It will also provide the appropriate commercial mechanisms for the UK public sector procurement practitioners to engage with their respective supply chains in the creation and retention of value as a response to the savings and efficiency challenge.

This research study extends the current methodological approaches in this field by combining the prevalent exploratory and case based methodology with quantitative methods and also by adopting interpretivism/constructivism as the core research paradigm. This was demonstrated in the research study through the combination of qualitative analysis (the use of the NVivo software in analysing the critical success factors) and quantitative analysis (multiple linear regression modelling analysis in determining the effect of procurement methods on value creation and retention).

This research contributes to the existing theory in this field by building on and refining the positions espoused in Liu et al. (2009). It does this by providing, refining and defining a number of terms and variables within the domain and applied within the UK Government Procurement (which is the setting for theory application). The thesis offers up a set of

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relationships and specific predictions by predicting the effect that transactional, relational or the combination of both approaches (mixed) has on value creation. This is in line with the definition of theory building, refinement and extension set out in Voss, Tsikriktsis and Frohlich (2002: 197-199) which sees theory building as containing four parts - definitions of terms or variable, a domain (the exact setting in which the theory can be applied), a set of relationships and specific predictions.

Public sector organisations are structured in such a way that the delegation of delivery responsibility is devolved from the centre to the respective Government Departments whilst certain controls and approvals are retained by the centre (Cabinet Office and HMT). They are organised in such a way that individual Government Departments has appropriate commercial delegations to procure and contract manage aspects of their delivery expenditure whilst other aspects of the procurement expenditure are centralised and subject to centrally negotiated frameworks and contracts. The capability, capacity and resources that are required to effectively administer and manage the strategic sourcing and commercial management activities remain sub-optimal. These and other aspects of the UK public sector procurement organisation remains largely under investigated especially in respect of creating added value and protecting the already created value. This research study sees this as a gap and makes a contribution in extending this body of knowledge.

This research combines transactional approaches (transaction cost theory) with relational approaches (relational theory) in exploring the effectiveness of these approaches in the creation and retention of value within the UK public sector. This is a departure from the established literature and body of knowledge in this field as previous studies largely concentrated on transactional approaches by way of detailed contract reducing opportunism (Dahlstrom and Nygaard, 1999; Williamson, 1985), distrust between exchange members and opportunism (John, 1984) and promoting individual's private gains (Cannon et al., 2000; Poppo and Zenger, 2002). None of these studies focused on the use of transactional cost

analysis in determining its effectiveness when compared with relational approaches in value creation and retention within the UK public sector.

Similarly, previous studies in analysing the effects of relational mechanisms focused on the use of trust and norms as restraints for parties acting opportunistically (Brown et al., 2000; Wathne and Heide, 2000), reducing the efficiency of self-enforcement (Wicks et al., 1999; Wuyts and Geyskens, 2005), discourages malfeasance (Granovetter, 1985; Jones et al., 1997) and in the context of partnerships and equity joint ventures (Dyer and Chu, 2003; Luo, 2007; Mohr and Spekman, 1994 and Uzzi (1997). This research study however, departs from these applications of relational approaches and contextualises relational procurement methods in the determination of value creation and retention within the UK Public Sector.

This research study goes further to offer explanations on the joint positive effects that can be gained by combining the transactional and relational approaches in the creation and retention of added value. This method whilst similar to those adopted in Liu et al. (2009), Granovetter (1985) and Uzzi (1997) where they combined formal (transactional) and informal (relational) mechanisms to redress deficiencies and reinforce each party's particular functions, extends the existing body of knowledge by investigating and analysing the collected data with the application of transactional and relational approaches or a combination of the two in determining their effects on value creation and retention within the UK Public Sector.

Due to the increasing complexities of the nature of public sector procurement, the need to deliver savings and efficiencies and the use of outsourcing which is required to be managed by the retained organisation, it is important for the procurement organisation to have extensive commercial management capacity and capabilities in order to deal with these complexities. This research therefore contributes to the body of knowledge that exists on how through the adoption of appropriate procurement approaches, public sector procurement organisations can with innovative contracting methodologies, procurement and

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commercial management operating structures and principles extend the value creation and value retention process in public sector procurement and contracting.

The analyses, findings and conclusions reached in this research study provide the foundations for effective commercial solutions which the UK Government Officials and their Suppliers can deploy in optimising their supply chain solutions and benefits. It offers up a procurement approach that will enable the deployment of optimum procurement methods in managing the contractual, commercial and supplier relationships between Government and its suppliers. It investigated and analysed the way Government Departments (DWP, MOJ and HMRC) are configured, the commercial management and solutions deployed and offers up reasoned conclusions that a shift towards standard services for the provision of IT Desktop services based on output pricing provides the most optimum strategic commercial management outcome. The study also concludes that optimum value is achieved and retained by Government Departments through the use of multiple suppliers, sophisticatedly written and binding contracts; trust based long-term procurement relationships where buyers and sellers cooperate, collaborate, share information, are committed, interdependent and engages in joint problem-solving.

The research study posits that the adoption of a combined transactional and relational procurement approach by both Government Officials and their Suppliers provides the most effective basis for increasing the delivery of value and ensuring that the created value is not eroded. This finding has a significant impact that transcends the public sector with tangible commercial value for private sector organisations in optimising their value creation and retention both as suppliers to Government and also in their relationships with their supporting supply chains.

The conclusions presented in this research on leveraging the adopted procurement approaches across the UK public sector provides a framework within which the UK public sector can organise itself in order to gainfully appropriate and retain value from its supply

chain. It also provides a platform within which the combined transactional and relational procurement approach can be effectively deployed in order to maximise value delivery and retention within the UK Public Sector and across the wider private sector organisations.

The research study in its analyses and findings on the critical success factors offers up for both public and private sector organisations some of the critical dependencies that are required for both sectors to truly become successful, firstly in managing their core capabilities and competencies but more importantly in organising themselves for the delivery and retention of value. The identified critical success factors are therefore considered in this research study to be the core building blocks for enabling the successful implementation of the best performing procurement approach in the UK public procurement for the creation and retention of value. Furthermore a framework for the creation and retention of value within the UK Government Procurement as developed from related findings in this research is set out in Figure 5.3 for practitioners to take away.

6.3 Limitations of Research

6.3.1 Limitations of Research Methodology

This research study has a number of limitations. Firstly the sample size of the questionnaire responses was limited due to organisational constraints imposed by both public sector and private sector organisations whose officials completed the survey. This limited survey completion rate although statistically significant does however constrain the extent to which significant generalisations can be made from the findings and conclusions presented.

Secondly, the use of the qualitative research analytical tools may have introduced elements of researcher bias, anecdotes, generalisations and personal influences. This limitation most certainly impacted the decisions made at the pre-NVivo coding stage and at the coding conducted in NVivo. The coding conducted prior to the uploading of the data into NVivo required the codification of free text into meaningful groups and these will have elements of

researcher bias. Similarly the subsequent open and hierarchal coding in NVivo, the categorisation of codes, coding on data reordering, reduction/consolidation of codes and the segmentation in order of preference of the identified critical success factors may be constrained with elements of personal bias, these were minimised through the use of coding themes directly derived from the survey responses.

Thirdly, the research study based its cases on three major Government Department's which are the DWP, MOJ and HMRC and their IT Desktop suppliers as use cases both in the review of related cases (reports, sourcing strategies, documents etc.) and also for the deployment of survey questionnaires. The limitation to these sub set of Government Departments and the IT Desktop suppliers may limit the extent to which appropriate conclusions and generalisations can be made in respect of the wider UK Public Sector organisation.

6.3.2 Limitations of Findings

This research study is limited in scope to procurement approaches adopted within the UK Central Government. This limitation excludes such approaches as the cooperative relationships between buying organisations which according to Schotanus and Telgen is the cooperation between two or more organisations in a purchasing group in one or more steps of the purchasing process by sharing and/or bundling their purchasing volumes, information, and/or resources in order to achieve mutually compatible goals that could not be achieved individually (Schotanus and Telgen, 2007: 53). In this form of relational procurement method, collaborating organisations "pool or share their purchasing volumes information, and/or resources in purchasing groups in which the members share the workload between themselves. By doing so, these organisations combined in a group aim to obtain, among other things, lower purchase prices and reduced duplications of efforts and activities due to economies of scale, process, and information" (Schotanus et al., 2010: 51).

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The research construct reliability and validity may be constrained and limited as the number of survey questionnaire respondents is limited. Overall, 28 Government Official questionnaire responses and 7 supplier questionnaire responses were completed. The low number of responses is as a result of some of the public and private sector organisations electing to only complete one questionnaire for their respective organisations. The low response rate is also believed to be directly linked to the fewer number of Officials directly involved with the IT Desktop procurement from the Government and the supplier side. Additionally a number of the potential respondents felt unable to complete the questionnaire because they weren't directly involved in the capture and reporting of the IT Desktop associated value. However the overall response rates extend across all the organisations sampled with a total of 35 survey questionnaire responses. It also presents representative responses for each of the participating organisations. These limitations could have been mitigated by opening up the scope to all Government Departments rather than just the three that were selected. Similarly, the survey response rate would have been higher if the choice of procurement category was opened up to cover all UK Government's categories of spend instead of the limitation to the IT Desktop category.

This research utilised aggregated variables in conducting the multiple linear regression modelling analysis, whilst the output from this analysis remains valid and provides reliable and valid conclusions, it could benefit from additional analysis on the micro level variables including transactional procurement variables such as contract, opportunism and transactional complexity and for relational procurement variables such as relational norms, trust and personal relationships and duration regressed against value variables such as value for money, discounts, savings, retention, support, result, switching, funding and service.

6.4 Future Directions

This research study combined the exploratory and case based methodology with qualitative and quantitative methods in analysing the critical success factors and determining the effect of procurement methods on value creation and retention. However there are several opportunities for extending knowledge with future studies in this general research area.

Firstly and due to the limitations of the sample size of the questionnaire responses, the limited survey completion rate and the constraints of the extent to which significant generalisations can be made from the findings and conclusions presented, further research in this area with significantly larger sample size and higher completion rates will lead to more generalisable conclusions.

Secondly, the research study utilised three major Government Departments' use cases both in the review of related cases (reports, sourcing strategies, documents etc.) and also for the deployment of survey questionnaires. Further research in this area could be expanded to include a cross section of public sector organisations including larger and smaller Government Departments, Local Authorities, Non Departmental public Bodies (NDPBs) and the wider public sector. Similarly the scope of the procurement category utilised could be extended beyond the IT desktop category to ensure that appropriate conclusions and generalisations can be made in respect of the wider UK public sector.

Thirdly, this research study limited its scope to procurement approaches adopted within the UK Central Government thus excluding such approaches as the cooperative relationships between buying organisations. Cooperative relationships are popular within the UK Local Authorities, the Police Service, the Fire Service and the Ambulance Service where there is a prevalence of buying consortiums. Future research in this area could be extended to include cooperative relationships between buying organisations.

Fourthly, to help improve the research construct reliability and validity, future research in this area should be expanded to include more Government Officials and suppliers including

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Small to Medium Enterprises (SME's) who may not be directly involved with the IT Desktop procurement but retain a general interest in the procurement and supply of goods and services to the UK Public Sector.

Fifthly, whilst aspects of contingency theory was applied in this research study, especially in the determination of appropriate procurement approaches, further research with detailed emphasis on the use of contingency theory as a procurement approach in the determination of value creation and retention will be worth further investigation.

Finally, whilst this research utilised aggregated variables in conducting the multiple linear regression modelling analysis future research would benefit from additional analysis on the micro level variables including transactional procurement variables such as contract, opportunism and transactional complexity and for relational procurement variables such as relational norms, trust and personal relationships and duration regressed against value variables such as value for money, discounts, savings, retention, support, result, switching, funding and service.

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APPENDICES

Appendix A: Survey Questionnaire – Government Officials

Transforming the UK Public Procurement from transactional/relational practice to strategic commercial management

Introduction and Informed Consent

Many thanks for agreeing to participate in this doctoral research project titled "Transforming the UK public procurement from transactional/relational practice to strategic commercial management".

Before taking part in completing this questionnaire, can I ask you to please read the consent form below and confirm that you understand the statements and freely consent to participate in this research study

Research Purpose

This research is aimed at transforming the UK public procurement from transactional/relational practice to strategic commercial management. The primary focus of this research will be on the Desktop IT procurement category in order to determine which of the procurement methods - transactional or relational is more appropriate for the creation and retention of value within the UK public sector. The Desktop category lends itself naturally to either of these procurement methods.

This research will be situated within the confines of the following research problems:

1) The structure and organisation of public sector procurement groups will determine their ability to manage highly complex public sector procurement requirements and by implication the supporting supply chains; if additional value is to be created and those already created are to be protected from being eroded.

2) The type of procurement approaches (transactional, relational or a combination of both approaches) adopted by public sector procurement groups is likely to determine their ability to deliver greater value and also protect the erosion of already created value.

The objectives of this research, which will be both practice and academic focussed builds on some of the issues identified from the literature review and also from some of the increasing cost and efficiency challenges presented by the UK HM Treasury to public sector procurement groups, are as follows:

1) To investigate and analyse some of the different procurement approaches (transactional or relational) that are adopted within the UK public sector procurement groups, so as to determine the extent to which these approaches create added value and protect the erosion of the value already created.

2) To establish how the evaluated approaches should be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements.

3) To investigate the critical success factors in implementing the best-performing approach in the UK public procurement

Some of the anticipated benefits include:

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- 1) A better understanding of the need to extend the current capabilities, competences and accountability of the procurement function from transactional and relational to a strategic-based commercial management function.
- 2) The positioning of the buying centre to provide the effective and efficient management of the supply chain solutions and the supporting systems and structures that underpins it.
- 3) How through the adoption of appropriate procurement approaches public sector procurement organisations can, with innovative contracting methodologies, procurement and commercial management operating structures and principles, extend the value creation and value retention process in public sector procurement and contracting.

The study is being conducted by Philip Orumwense in partial fulfilment of an executive doctoral degree (DBA) at Aston Business School, Operations & Information Management Group, Birmingham, United Kingdom.

This research project has been approved by Aston Business School Research Ethics Review Board. No deception is involved, and the study involves no more than minimal risk to participants (i.e., the level of risk that will ordinarily be encountered in daily life) Participation in the questionnaire should take no more than 60 minutes.

Participation is voluntary, participants may withdraw from the study at any time and they may also decline to answer any questions if they feel uncomfortable with the questions asked.

Participants will not receive any financial compensation for their participation in this research nor will they incur any costs as a result. None of the views expressed as a result of participation will be attributable to any participants in this project.

Confidentiality and Privacy Protections:

We will make our best effort to protect your statements and answers, so that no one will be able to connect them with you. These records will remain confidential. UK or European laws may require us to show information to university or government officials, who are responsible for monitoring the safety of this study. Any personal information that could identify you will be removed or changed before files are shared with other researchers or results are made public.

Disclosure

All other involved external parties have signed appropriate disclosure agreements. Collected data through the research student is fully exclusive for this research project and its purpose. No external party will own any data and data will be deleted upon the completion of the retained services provision. The data collection and storage fully complies with the legal data protection acts.

Research Dissemination

Data obtained through this research will be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research (i.e. conferences, peer reviewed journals, articles etc.).

Contacts

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APPENDICES

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Consent Form

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions of a member of the research team and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.
3. I understand that relevant sections of my data collected during the study, may be looked at by individuals from the research team, at the Aston University, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.
4. If required, I agree to be interviewed and being audio taped.
5. I agree to the use of direct quotations in publications, where Anonymity is not required.
6. I agree that the use of the company name in context with direct quotations and practices should be treated with great care and confidentiality
7. I agree to take voluntary part in the above named study.

Questionnaire

Please read the following statements carefully and tick the appropriate box that best describes your response to the question. These questions are based on the Likert scale

On a scale of 1 to 7 with 1 being strongly disagree and 7 being strongly agree, please identify which of the following responses best describes your response to the following questions. Your responses should be made within the context of your current or past IT Desktop Services Contract.

TRANSACTIONAL (CONTRACT)

This is where a contract is deemed to be a binding legal arrangement with defined roles, responsibilities, obligations and operational performance measures.

1. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

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	1	2	3	4	5	6	7
a. Our relationship with the Desktop supplier is governed primarily by written contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. We have formal agreements that detail the obligations and rights of both parties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Specific performance measures are specified in written contracts for tracking and measuring performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Penalties and incentives that govern performance are detailed in our Desktop Contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Over time we have developed ways of doing things with the IT Desktop supplier that never need to be expressed contractually or formally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Post contract activities such as the treatment of variation orders reflects the desired changes and are dealt with relatively easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. The buyer's organisational policy (including the EU procurement regulations) limits all contractual and supplier agreements to both formal and written	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TRANSACTIONAL (OPPORTUNISM)

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Opportunism is where a party's behaviour is measured on how it takes advantage of loopholes in contracts, breaches informal agreements, breaks promises or is dishonest to maximise its own benefits

2. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. The IT Desktop supplier sometimes takes advantage on occasions about certain things in order to protect its interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. The IT Desktop supplier sometimes fails to deliver obligations and other commitments as described in the contract, for its own interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The IT Desktop supplier sometimes breaches informal agreements between our companies to maximize its own benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. The IT Desktop supplier (sometimes utilises its competitive advantage to appropriate more value from our relationship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. The IT Desktop supplier often takes advantage of loopholes in our contract to enhance its own interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. The IT Desktop supplier sometimes retains all the savings generated from the supply chain without passing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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any on or sharing any of it with other parties in the value chain

TRANSACTIONAL (Transactional Complexity)

The extent to which the relationship is governed by sophisticatedly written contracted provisions and the ease with which agreements and negotiated positions are reached

3. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. It takes a long time for negotiations on every agreement or common comprehension to be reached	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Agreements need several revisions when enforced after being signed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Contracts are renegotiated and re-signed several times for sophisticated areas and clauses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Information exchange and communication between the contracting parties are open, proactive and aimed at enhancing the knowledge of both parties for the creation of added value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. The Change Management process is clearly detailed, understood and followed prior to the introduction of any desired changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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f. The Supplier administration costs for variation orders, purchase orders, invoice processing etc. are deemed to be high and could be avoided through longer term partnership agreements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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RELATIONAL (RELATIONAL NORMS)

Relational norms emphasises the role of social interactions and the benefits that can be derived from socially embedded relationships. It is about expectations of behaviours that are partially shared by collaborating organisations and directed towards the achievement of collective or group goals

4. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. In this relationship, both parties expect that any information that may help the other party will be provided to that party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. In this relationship, ideas or initiatives of both sides are widely shared and welcomed via open communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. In this relationship, problems or conflicts are expected by both parties to be solved through joint consultations and discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. In this relationship effective partnership relationships is deemed to be important in creating, delivering and retaining value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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e. In this relationship, both parties play a healthy role in the other party's decisions via mutual understanding and socialization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. In this relationship joint and co-development (collaboration) is perceived to be important in the delivery of organisational goals, objectives and specific requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. In this relationship, both parties ensures that the best available resources (the 'A-team') are deployed on joint activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELATIONAL (TRUST)

Trust is about the honesty and/or benevolence that exist between the partners or their employees in an exchange relationship

5. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. We believe in the supplier and their representatives because they are sincere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Though the circumstances change, we believe that the supplier and their representatives will be ready and willing to offer us assistance and support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. When making important decisions, the supplier and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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their representatives are concerned about our welfare or interests							
d. Honesty and transparency exists in all of our dealings with the supplier and their representatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. We can count on the supplier and their representatives that future decisions and actions will not adversely affect us	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. : When it comes to things that are important to us, we can depend on the supplier's and their representatives' support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. We believe that our supplier and their representatives will protect the security and ensure the continuity of supply	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELATIONAL (PERSONAL RELATIONSHIPS AND DURATION)

The extent to which relationships are embedded and its duration as a factor in maintaining collaborative relationships and value creating exchanges through personal relationships (attitudes & behaviours)

6. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. Leaders of both sides always invite each other to participate in various activities for socialization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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b. Our leaders and the leaders of our partner may call on each other sometimes to resolve re-recurring issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Our staff and the staff of our partner often communicate with each other to explore opportunities for mutual growth and collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Our staff and the staff of our partner do personal favours for each other in order to achieve both individual and organisational goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Both Customer and Partners have been involved in the mutually beneficial relationship for a long time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Our staff and the staff of our partners engages in little or no joint activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELATIONSHIP PERFORMANCE (VALUE)

Relationship performance is about the economic outcome that comes from an exchange relationship. Some measures of economic outcomes such as sales volume, margins, etc. (Value includes all of those variables that enable the provision of goods and services for the fulfilment of an organisation's requirements and also delivers both direct and indirect benefits to the partners in an exchange relationship. This could be direct cost benefit, savings, enhanced service delivery, etc or indirect benefits which could be the total support services, trust, communication, relationship management etc.)

7. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7

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a. Our relationship with the IT Desktop supplier has provided us with a dominant and profitable market position in our sales/business area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Our relationship with the IT Desktop supplier is very attractive with respect to discounts, innovation and business process improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. We are very pleased to do business with this supplier since it generates profitability and value for our business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Our relationship with this supplier allows us to create, share and retain more value from our transactions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. This supplier provides us with high quality support and access for continuous development, revenue generation and value creation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Our negotiation with this supplier always results in a win/lose (1) mixed (5) or win/win (7) outcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Our relationship and investments with this supplier means that cost of switching to another source is high	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. In the absence of an initial investment capital (people	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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[illegible]

LEVERAGING THE MOST APPROPRIATE PROCUREMENT METHODS ACROSS GOVERNMENT

Please indicate the most appropriate methods by which the best approaches can be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements

8. Please select one of the following statements that best represents your view (**Optional**)

- ☐ Individual Government Departments developing their own Procurement methods, capabilities and competences solely for the delivery of their products and services
- ☐ Individual Government Departments developing their own independent supply chains and supplier relationship management with their respective suppliers
- ☐ Individual Government Departments pooling and aggregating their demand with other Government Departments to create improved leverage and increased value for money
- ☐ Individual Government Departments delivering specific Procurement contracts for which they control the most volume and for which they are able to create the best value across Government
- ☐ Creating procurement category management consolidated centres of expertise (centralised procurement at the centre of Government) to enable aggregation and increased value for money delivery
- ☐ Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation
- ☐ Other (***please specify***):

THE CRITICAL SUCCESS FACTORS FOR IMPLEMENTING THE BEST-PERFORMING APPROACH IN THE UK PUBLIC PROCUREMENT

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Please list the critical success factors that will enable the implementation of the best-performing procurement method in the UK public procurement. Some examples could include: The recruitment and retention of highly capable and qualified staff; the creation of a pan Government Centralised and flexible Procurement Function, the vestment of the Procurement Buying Authority on a Centralised Procurement Authority; the development of a core group of suppliers for the delivery of services to all Government Departments etc.

9. This is a free text question. Please add as much comment as you like **(Optional)**

Please list all other comments you feel appropriate below **(Optional)**

Place of Work

Please indicate which of the following Government Departments you work for

10. (Optional)

- ☐ Department for Work and Pensions (DWP)
- ☐ Her Majesty's Revenue and Customs (HMRC)
- ☐ Ministry of Justice (MOJ)
- ☐ Other **(please specify)**:

11. What's the date today? **(Optional)**

(DD-MM-YYYY) (enter a date in DD-MM-YYYY format)

Appendix B: Survey Questionnaire – IT Desktop Suppliers

Transforming the UK Public Procurement from transactional/relational practice to strategic commercial management

Introduction and Informed Consent

Many thanks for agreeing to participate in this doctoral research project titled "Transforming the UK public procurement from transactional/relational practice to strategic commercial management".

Before taking part in completing this questionnaire, can I ask you to please read the consent form below and confirm that you understand the statements and freely consent to participate in this research study

Research Purpose

This research is aimed at transforming the UK public procurement from transactional/relational practice to strategic commercial management. The primary focus of this research will be on the Desktop IT procurement category in order to determine which of the procurement methods - transactional or relational is more appropriate for the creation and retention of value within the UK public sector. The Desktop category lends itself naturally to either of these procurement methods.

This research will be situated within the confines of the following research problems:

- 1) The structure and organisation of public sector procurement groups will determine their ability to manage highly complex public sector procurement requirements and by implication the supporting supply chains; if additional value is to be created and those already created are to be protected from being eroded.
- 2) The type of procurement approaches (transactional, relational or a combination of both approaches) adopted by public sector procurement groups is likely to determine their ability to deliver greater value and also protect the erosion of already created value.

The objectives of this research, which will be both practice and academic focussed builds on some of the issues identified from the literature review and also from some of the increasing cost and efficiency challenges presented by the UK HM Treasury to public sector procurement groups, are as follows:

- 1) To investigate and analyse some of the different procurement approaches (transactional or relational) that are adopted within the UK public sector procurement groups, so as to determine the extent to which these approaches create added value and protect the erosion of the value already created.
- 2) To establish how the evaluated approaches should be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements.
- 3) To investigate the critical success factors in implementing the best-performing approach in the UK public procurement

Some of the anticipated benefits include:

- 1) A better understanding of the need to extend the current capabilities, competences and accountability of the procurement function from transactional and relational to a strategic-based commercial management function.

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2) The positioning of the buying centre to provide the effective and efficient management of the supply chain solutions and the supporting systems and structures that underpins it.

3) How through the adoption of appropriate procurement approaches public sector procurement organisations can, with innovative contracting methodologies, procurement and commercial management operating structures and principles, extend the value creation and value retention process in public sector procurement and contracting.

The study is being conducted by Philip Orumwense in partial fulfilment of an executive doctoral degree (DBA) at Aston Business School, Operations & Information Management Group, Birmingham, United Kingdom.

This research project has been approved by Aston Business School Research Ethics Review Board. No deception is involved, and the study involves no more than minimal risk to participants (i.e., the level of risk that will ordinarily be encountered in daily life) Participation in the questionnaire should take no more than 60 minutes.

Participation is voluntary, participants may withdraw from the study at any time and they may also decline to answer any questions if they feel uncomfortable with the questions asked.

Participants will not receive any financial compensation for their participation in this research nor will they incur any costs as a result. None of the views expressed as a result of participation will be attributable to any participants in this project.

Confidentiality and Privacy Protections:

We will make our best effort to protect your statements and answers, so that no one will be able to connect them with you. These records will remain confidential. UK or European laws may require us to show information to university or government officials, who are responsible for monitoring the safety of this study. Any personal information that could identify you will be removed or changed before files are shared with other researchers or results are made public.

Disclosure

All other involved external parties have signed appropriate disclosure agreements. Collected data through the research student is fully exclusive for this research project and its purpose. No external party will own any data and data will be deleted upon the completion of the retained services provision. The data collection and storage fully complies with the legal data protection acts.

Research Dissemination

Data obtained through this research will be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research (i.e. conferences, peer reviewed journals, articles etc.).

Contacts

Please direct any queries regarding this research to:

Researcher: Philip Orumwense
Mobile Phone: 07728315009
Email: philip.orumwense@dwp.gsi.gov.uk

Supervisors
Dr. William Ho / Dr. Pavel Albores
Phone: +44(0)121 204 3342

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Email: w.ho@aston.ac.uk / p.albores@aston.ac.uk

Aston University
Aston Business School
Operations & Information Management
Aston Triangle, Birmingham, B4 7ET

Consent Form

- 1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions of a member of the research team and have had these answered satisfactorily.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.
- 3. I understand that relevant sections of my data collected during the study, may be looked at by individuals from the research team, at the Aston University, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.
- 4. If required, I agree to be interviewed and being audio taped.
- 5. I agree to the use of direct quotations in publications, where Anonymity is not required.
- 6. I agree that the use of the company name in context with direct quotations and practices should be treated with great care and confidentiality
- 7. I agree to take voluntary part in the above named study.

Questionnaire

Please read the following statements carefully and tick the appropriate box that best describes your response to the question. These questions are based on the Likert scale

On a scale of 1 to 7 with 1 being strongly disagree and 7 being strongly agree, please identify which of the following responses best describes your response to the following questions. Your responses should be made within the context of your current or past IT Desktop Services Contract.

Top of Form

TRANSACTIONAL (CONTRACT)

This is where a contract is deemed to be a binding legal arrangement with defined roles, responsibilities, obligations and operational performance measures.

1. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

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	1	2	3	4	5	6	7
a. Our relationship with Government Officials responsible for Desktop is governed primarily by written contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. We have formal agreements that detail the obligations and rights of both parties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Specific performance measures are specified in written contracts for tracking and measuring performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Penalties and incentives that govern performance are detailed in our Desktop Contracts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Over time we have developed ways of doing things with the IT Desktop Government Official that never need to be expressed contractually or formally	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Post contract activities such as the treatment of variation orders reflects the desired changes and are dealt with relatively easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Government Department's organisational policy (including the EU procurement regulations) limits all contractual and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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supplier agreements to both formal and written							
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TRANSACTIONAL (OPPORTUNISM)

Opportunism is where a party's behaviour is measured on how it takes advantage of loopholes in contracts, breaches informal agreements, breaks promises or is dishonest to maximise its own benefits

2. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. Government Officials responsible for IT Desktop sometimes takes advantage on occasions about certain things in order to protect its interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Government Officials responsible for IT Desktop sometimes fails to deliver obligations and other commitments as described in the contract, for its own interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Government Officials responsible for IT Desktop sometimes breaches informal agreements between our companies to maximize its own benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Government Officials responsible for IT Desktop (sometimes utilises its competitive advantage to appropriate more value from our relationship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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e. Government Officials responsible for IT Desktop often takes advantage of loopholes in our contract to enhance its own interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Government Officials responsible for IT Desktop sometimes retains all the savings generated from the supply chain without passing any on or sharing any of it with other parties in the value chain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

TRANSACTIONAL (Transactional Complexity)

The extent to which the relationship is governed by sophisticatedly written contracted provisions and the ease with which agreements and negotiated positions are reached

3. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. It takes a long time for negotiations on every agreement or common comprehension to be reached	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Agreements need several revisions when enforced after being signed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Contracts are renegotiated and re-signed several times for sophisticated areas and clauses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Information exchange and communication between the contracting parties are open,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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proactive and aimed at enhancing the knowledge of both parties for the creation of added value							
e. The Change Management process is clearly detailed, understood and followed prior to the introduction of any desired changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Government Department's costs for variation orders, purchase orders, invoice processing etc. are deemed to be high and could be avoided through longer term partnership agreements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELATIONAL (RELATIONAL NORMS)

Relational norms emphasises the role of social interactions and the benefits that can be derived from socially embedded relationships. It is about expectations of behaviours that are partially shared by collaborating organisations and directed towards the achievement of collective or group goals

4. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. In this relationship, both parties expect that any information that may help the other party will be provided to that party	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. In this relationship, ideas or initiatives of both sides are widely shared and welcomed via open communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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c. In this relationship, problems or conflicts are expected by both parties to be solved through joint consultations and discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. In this relationship effective partnership relationships is deemed to be important in creating, delivering and retaining value	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. In this relationship, both parties play a healthy role in the other party's decisions via mutual understanding and socialization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. In this relationship joint and co-development (collaboration) is perceived to be important in the delivery of organisational goals, objectives and specific requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. In this relationship, both parties ensures that the best available resources (the 'A-team') are deployed on joint activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELATIONAL (TRUST)

Trust is about the honesty and/or benevolence that exist between the partners or their employees in an exchange relationship

5. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

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	1	2	3	4	5	6	7
a. We believe that Government Officials and their representatives because they are sincere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Though the circumstances change, we believe that Government Officials and their representatives will be ready and willing to offer us assistance and support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. When making important decisions, Government Officials and their representatives are concerned about our welfare or interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Honesty and transparency exists in all of our dealings with Government Officials and their representatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. We can count on Government Officials and their representatives that future decisions and actions will not adversely affect us	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. : When it comes to things that are important to us, we can depend on Government Officials and their representatives' support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. We believe that Government Officials and their representatives will	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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protect the security and ensure the continuity of supply							
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RELATIONAL (PERSONAL RELATIONSHIPS AND DURATION)

The extent to which relationships are embedded and its duration as a factor in maintaining collaborative relationships and value creating exchanges through personal relationships (attitudes & behaviours)

6. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. Leaders of both sides always invite each other to participate in various activities for socialization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Our leaders and the leaders of our partner may call on each other sometimes to resolve re-recurring issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Our staff and the staff of our partner often communicate with each other to explore opportunities for mutual growth and collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Our staff and the staff of our partner do personal favours for each other in order to achieve both individual and organisational goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Both Customer and Partners have been involved in the mutually beneficial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDICES

relationship for a long time							
f. Our staff and the staff of our partners engages in little or no joint activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

RELATIONSHIP PERFORMANCE (VALUE)

Relationship performance is about the economic outcome that comes from an exchange relationship. Some measures of economic outcomes such as sales volume, margins, etc. (Value includes all of those variables that enable the provision of goods and services for the fulfilment of an organisation's requirements and also delivers both direct and indirect benefits to the partners in an exchange relationship. This could be direct cost benefit, savings, enhanced service delivery, etc. or indirect benefits which could be the total support services, trust, communication, relationship management etc.)

7. For each statement, please rate the extent of your agreement or disagreement. (1 = Strongly Disagree and 7 = Strongly Agree)

	1	2	3	4	5	6	7
a. Our relationship with Government Officials responsible for IT Desktop has provided us with a dominant and profitable market position in our sales/business area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Our relationship with Government Officials responsible for IT Desktop is very attractive with respect to discounts, innovation and business process improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. We are very pleased to do business with Government Departments since it generates profitability and value for our business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDICES

d. Our relationship with Government Departments allows us to create, share and retain more value from our transactions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Government Departments provides us with high quality support and access for continuous development, revenue generation and value creation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Our negotiation with Government Officials responsible for IT Desktop always results in a win/lose (1) mixed (5) or win/win (7) outcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Our relationship and investments with Government Departments means that the cost of switching to another source is high	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. In the absence of an initial investment capital (people and money) Government Officials responsible for IT Desktop are willing to fund the investment and recover the invested costs through cost amortisation over the life of the contract	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. We are very satisfied with the level of service we receive from Government Officials responsible for IT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Desktop

LEVERAGING THE MOST APPROPRIATE PROCUREMENT METHODS ACROSS GOVERNMENT

Please indicate the most appropriate methods by which the best approaches can be leveraged across the UK public sector procurement groups and across various procurement categories to help create shared assets, competences and capabilities in the delivery of public sector procurement requirements

8. Please select one of the following statements that best represents your view **(Optional)**

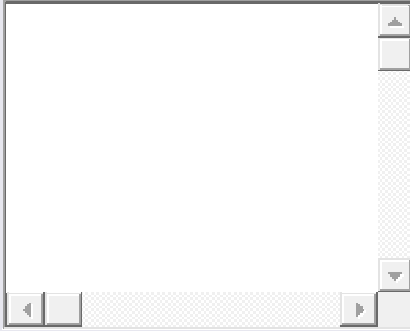
- ☐ Individual Government Departments developing their own Procurement methods, capabilities and competences solely for the delivery of their products and services
- ☐ Individual Government Departments developing their own independent supply chains and supplier relationship management with their respective suppliers
- ☐ Individual Government Departments pooling and aggregating their demand with other Government Departments to create improved leverage and increased value for money
- ☐ Individual Government Departments delivering specific Procurement contracts for which they control the most volume and for which they are able to create the best value across Government
- ☐ Creating procurement category management consolidated centres of expertise (centralised procurement at the centre of Government) to enable aggregation and increased value for money delivery
- ☐ Government Departments pooling their requirements and volumes through a cross government framework to create opportunities for standardisation and aggregation
- ☐ Other **(please specify)**:

THE CRITICAL SUCCESS FACTORS FOR IMPLEMENTING THE BEST-PERFORMING APPROACH IN THE UK PUBLIC PROCUREMENT

Please list the critical success factors that will enable the implementation of the best-performing procurement method in the UK public procurement. Some examples could include: The recruitment and retention of highly capable and qualified staff; the creation of a pan Government Centralised and flexible Procurement Function, the vestment of the Procurement Buying Authority on a Centralised Procurement Authority; the development of a core group of suppliers for the delivery of services to all Government Departments etc.

9. This is a free text question. Please add as much comment as you like **(Optional)**

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Please list all other comments you feel appropriate below **(Optional)**



The Government Department Buying Organisation

Please indicate which of the following Government Departments you supply IT Desktop to

10. **(Optional)** **(select all that apply)**

- ☐ Department for Work and Pensions (DWP)
- ☐ Her Majesty's Revenue and Customs (HMRC)
- ☐ Ministry of Justice (MOJ)
- ☐ Other **(please specify)**:



11. Please select which of the following Supplier Organisation you work for **(Optional)** **(select all that apply)**

- ☐ Hewlett Packard
- ☐ Atos Origin
- ☐ Fujitsu
- ☐ Steria
- ☐ BT

APPENDICES

☐ Cap Gemini

☐ IBM

☐ CSC

☐ SCC

☐ Other (***please specify***):

12. What's the date today? (*Optional*)

(DD-MM-YYYY) (enter a date in DD-MM-YYYY format)

APPENDICES

Appendix C: The Government Official Structure Matrix

	Component											
	1	2	3	4	5	6	7	8	9	10	11	12
RT_actions	.902		.612	.457	-.387				-.378			
RV_service	.865	.521	.613	.382	-.377			-.304				
RT_concern	.833		.406	.419		.433						
RT_honesty	.826			.454								
RM_resources	.800	.373	.348	.692	-.330	.301	.354		-.579			
RT_sincerity	.792			.317				-.394	-.334			
RT_dependency	.738	.621	.666	.647	-.364							
RM_decisions	.723	.536	.407	.632		.562	.391				.319	
RM_information	.706	.314									-.334	
TTC_communication	.697		.321	.664		.496			-.397		.382	-.329
TO_savings	-.598	-.532	-.406	-.377	.332				.433			-.518
TTC_change	.402	.898	.368	.498			.318					
TC_performance	.301	.862	.370	.308							.310	
RT_security	.610	.859	.539	.627			.442			.457		
TC_agreements		.852	.446				.343					.462
RT_support	.696	.802	.627	.684	-.368		.430	-.308				
TC_penalties		.791	.429	.320								
RP_benefits	.517	.723	.508	.682			.552			.605		
RV_funding		.700				.564	.374			.319		
RM_ideas	.647	.649	.541	.607			.458			.443		
RV_result	.348	.556	.471	.498					.423			
RV_savings	.423	.512	.929	.442	-.354							

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RV_discounts	.408	.401	.919	.401								
RV_support	.720	.434	.877	.562	-.389							
RV_retention	.568	.471	.874	.513	-.441					.351		
RV_vfm	.554	.573	.806	.341	-.511							
RM_conflicts		.405	.659	.602		.492	.561					
RM_collaboration	.641	.615	.417	.844			.526					
RP_joint activities	-.420	-.412	-.535	-.838								
RP_opportunities	.691	.482	.477	.824			.445		-.411			
RP_socialisation		.335	.307	.755	.368		.541					
RP_favours	.416	.398		.721				.379				
RV_switching				-.670								.371
RM_partnerships	.446	.476	.425	.669		.422	.511	-.410			.505	
RP_issues		.495		.545		.439	.308		.473			
TO_obligations			-.392		.845							
TO_advantage	-.571		-.412		.773				.409			
TO_advantage	-.414		-.444		.742			.415	.314	.331		
TO_loopholes	-.507		-.365		.727			.510	.409			
TTC_costs	-.444			-.311		-.886						
TTC_revisions							.789					
TC_formal				.325				.791				
TC_variation	.383	.477		.325		.331	.443	-.346	-.637		.518	.451
TTC_negotiations	-.318		-.416		.515		.378		.628			
TO_breach	-.352	-.312	-.446		.315					-.794		
TC_policy		.485	.409								.786	
TTC_renegotiation	-.387		-.350			-.450		.392		-.308	-.483	
TC_contract												.862

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Appendix D: The Government Officials and Supplier Structure Matrix

	Component												
	1	2	3	4	5	6	7	8	9	10	11	12	13
RT_honesty	.834	-.517	.447		.394								
RM_resources	.813	-.356	.354		.533	.427	.388						.449
RT_actions	.784				.382	.642							
TTC_communication	.782			.338	.415								.417
RT_concern	.767			.398	.305	.332	.399	.483	-.411				
RM_ideas	.729	-.498	.454		.628	.566							
RM_information	.708	-.343			.304	.424							
RT_sincerity	.680	-.321	.441							-.448	-.353		
RV_service	.630			.524	.344	.458	.429						
RV_support	.614	-.471	.497	.435	.604					-.309			.319
TO_obligations		.893										.363	
TO_breach	-.384	.883	-.372		-.337								
TO_advantage	-.338	.875							.369		.503	.324	
TO_loopholes	-.376	.852			-.414		-.370					.362	
TO_savings	-.357	.559	-.455		-.437	-.453	-.418				.388	.475	
TTC_renegotiation	-.301	.529		-.476	-.315		-.400		.444			.473	
TC_agreements	.303		.908				.374						
TC_performance	.336		.900	.310			.391	.339					
TC_penalties	.330		.897		.376								
RT_support	.602	-.451	.682		.548	.625	.389						.425
RV_savings	.492	-.434	.627	.584	.572					-.404			
RV_discounts				.846	.442								
RV_vfm				.783		.354							

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TC_policy			.388	.745			.637	.424					.512
RV_retention	.420	-.301	.368	.671	.379	.431		.366			-.356		
TTC_change		.337	.430	.506			.301	.484				.493	
RP_joint activities	-.387				-.818	-.449		-.332					-.345
RP_opportunities	.603		.306		.799	.395							
RM_conflicts		-.334		.414	.788				-.389				
RM_partnerships	.440		.482	.491	.691		.463			-.470			.539
RM_collaboration	.546	-.347	.447		.605	.594	.406						.595
RT_dependency	.422			.382	.438	.891							
RT_security	.359		.358	.440	.410	.764	.403						
TC_variation	.396		.365		.426		.875						
TC_contract							.650						
RP_issues					.383			.751			.351		
RV_result			.437	.455				.747					.331
RP_socialisation		.372		.440	.429		.392	.593				.336	
RP_benefits	.491		.341	.449	.492	.424	.528	.576	-.439			.396	
RP_favours	.484		.324		.492	.411		.545		.307	-.414	.393	
RM_decisions	.396			.436	.385		.301	.588	-.703				
TTC_costs									.684				
TC_formal										.793			
RV_funding											.721		
TO_advantage		.652							.540		.656	.410	
TTC_revisions		.414										.796	
TTC_negotiations		.556				-.311		.469				.617	
RV_switching													-.691

Extraction Method: Principal Component Analysis.
Rotation Method: Promax with Kaiser Normalization.

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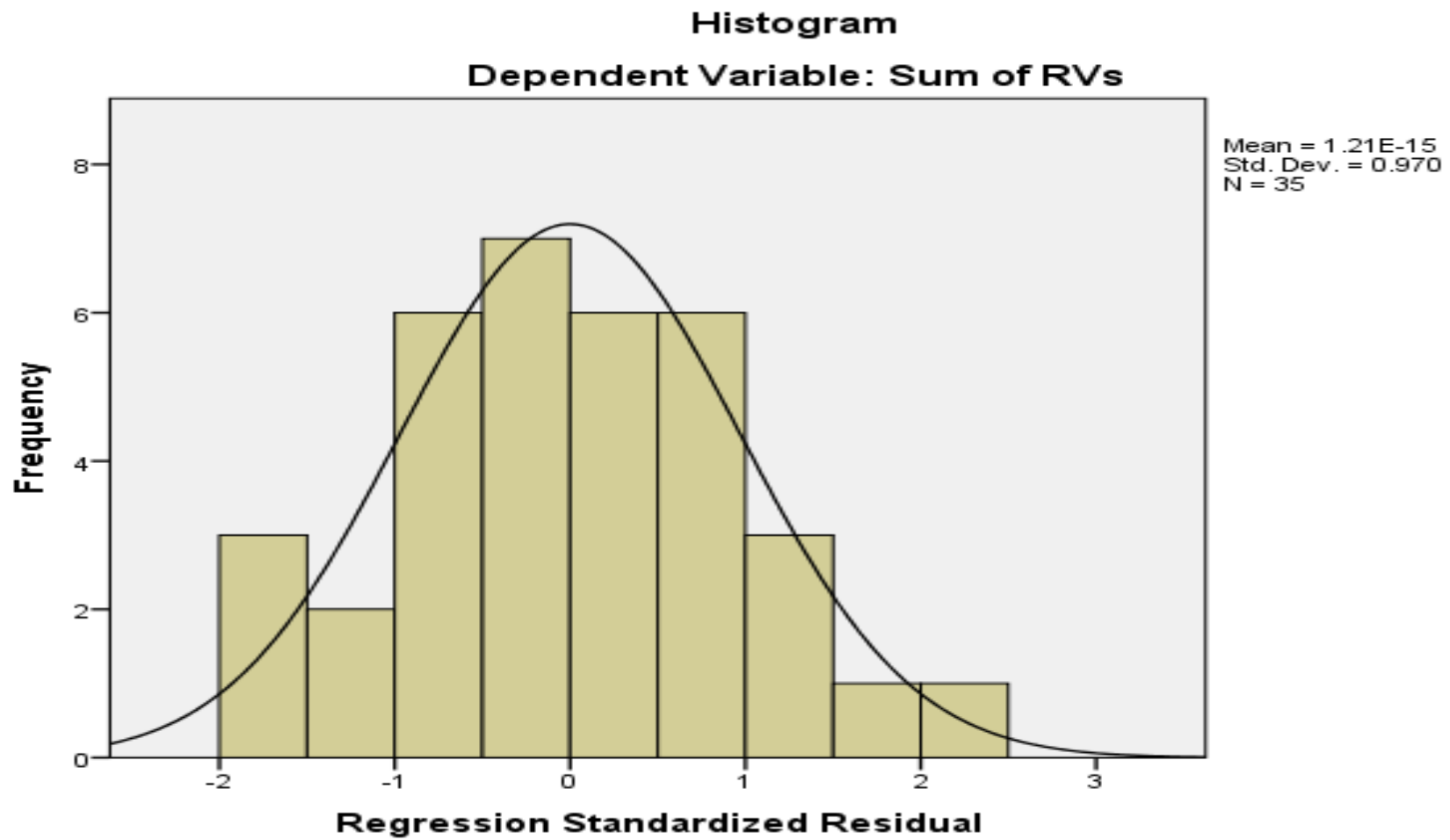
Appendix E: Summary and Diagnostic Statistics for Model 1: Transactional and Relational Variables

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	35.8504	51.4325	42.8571	3.62690	35
Std. Predicted Value	-1.932	2.364	.000	1.000	35
Standard Error of Predicted Value	1.261	6.158	1.934	.902	35
Adjusted Predicted Value	18.2458	55.7998	42.2805	5.77859	35
Residual	-13.43408	14.95879	.00000	7.05240	35
Std. Residual	-1.848	2.058	.000	.970	35
Stud. Residual	-2.127	2.687	.025	1.086	35
Deleted Residual	-17.79980	36.75423	.57668	9.79924	35
Stud. Deleted Residual	-2.259	3.005	.031	1.134	35
Mahal. Distance	.051	23.428	1.943	4.044	35
Cook's Distance	.000	6.115	.208	1.031	35
Centered Leverage Value	.001	.689	.057	.119	35

a. Dependent Variable: Sum of RVs

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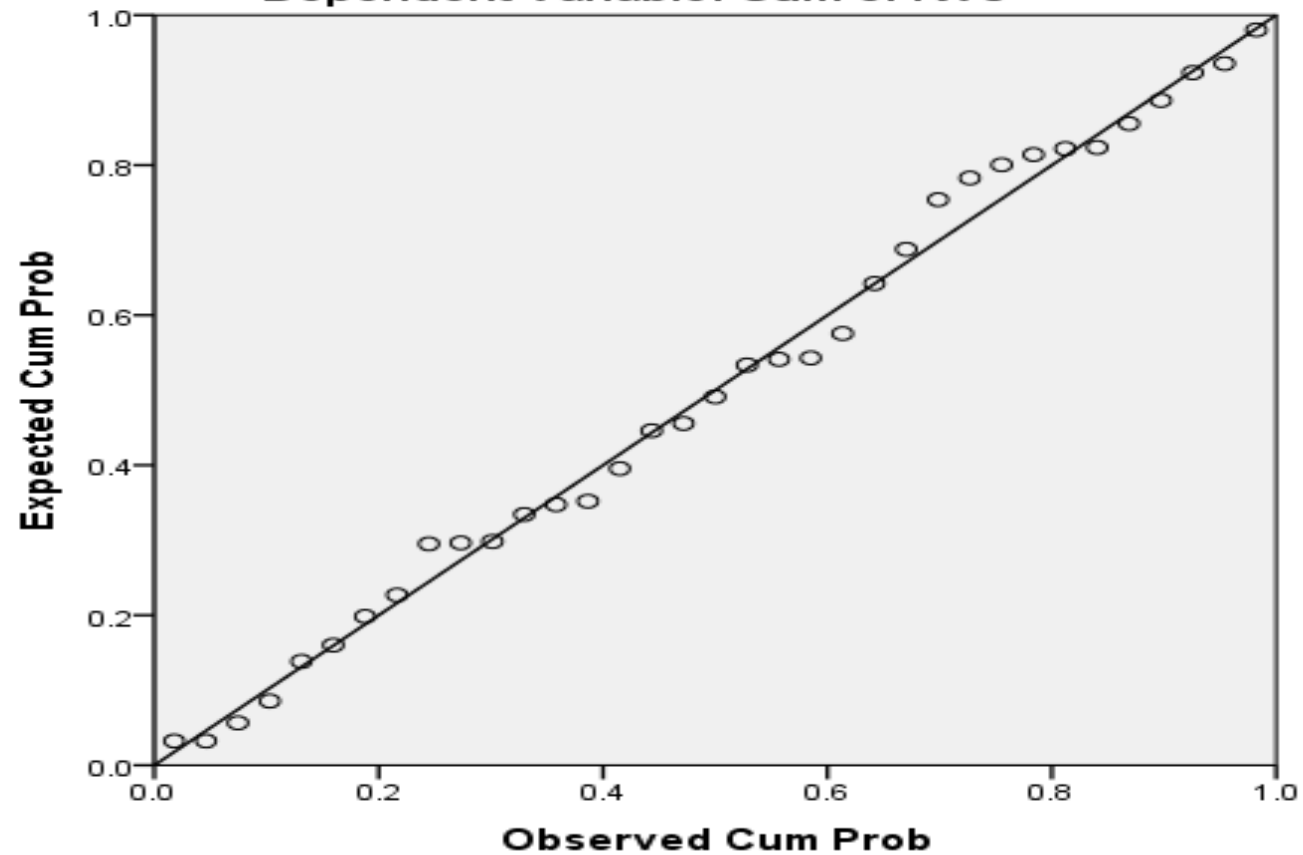
Appendix E (1): Histogram for Model 1: Transactional and Relational Variables



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Appendix E (2): Normal P-P Plot for Model 1: Transactional and Relational Variables

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Sum of RVs



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Appendix E (3): Normality Test for Model 1: Transactional and Relational Variables

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.075	35	.200 [*]	.984	35	.890
Standardized Residual	.075	35	.200 [*]	.984	35	.890

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Appendix E (4): White's Test for Heteroscedasticity Model 1: Transactional and Relational Variables

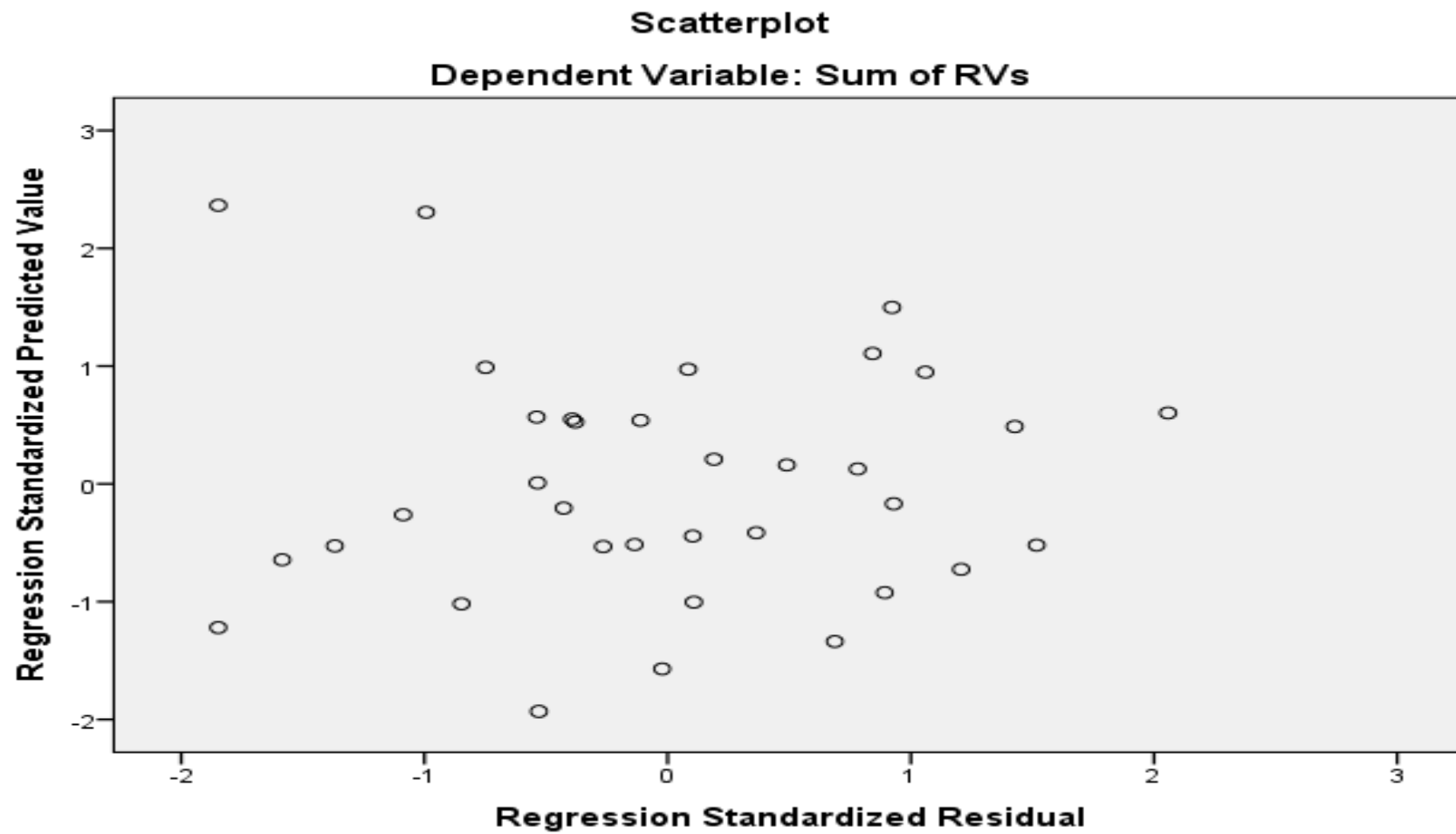
ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6462.134	2	3231.067	.946	.399 ^b
	Residual	109318.831	32	3416.213		
	Total	115780.965	34			

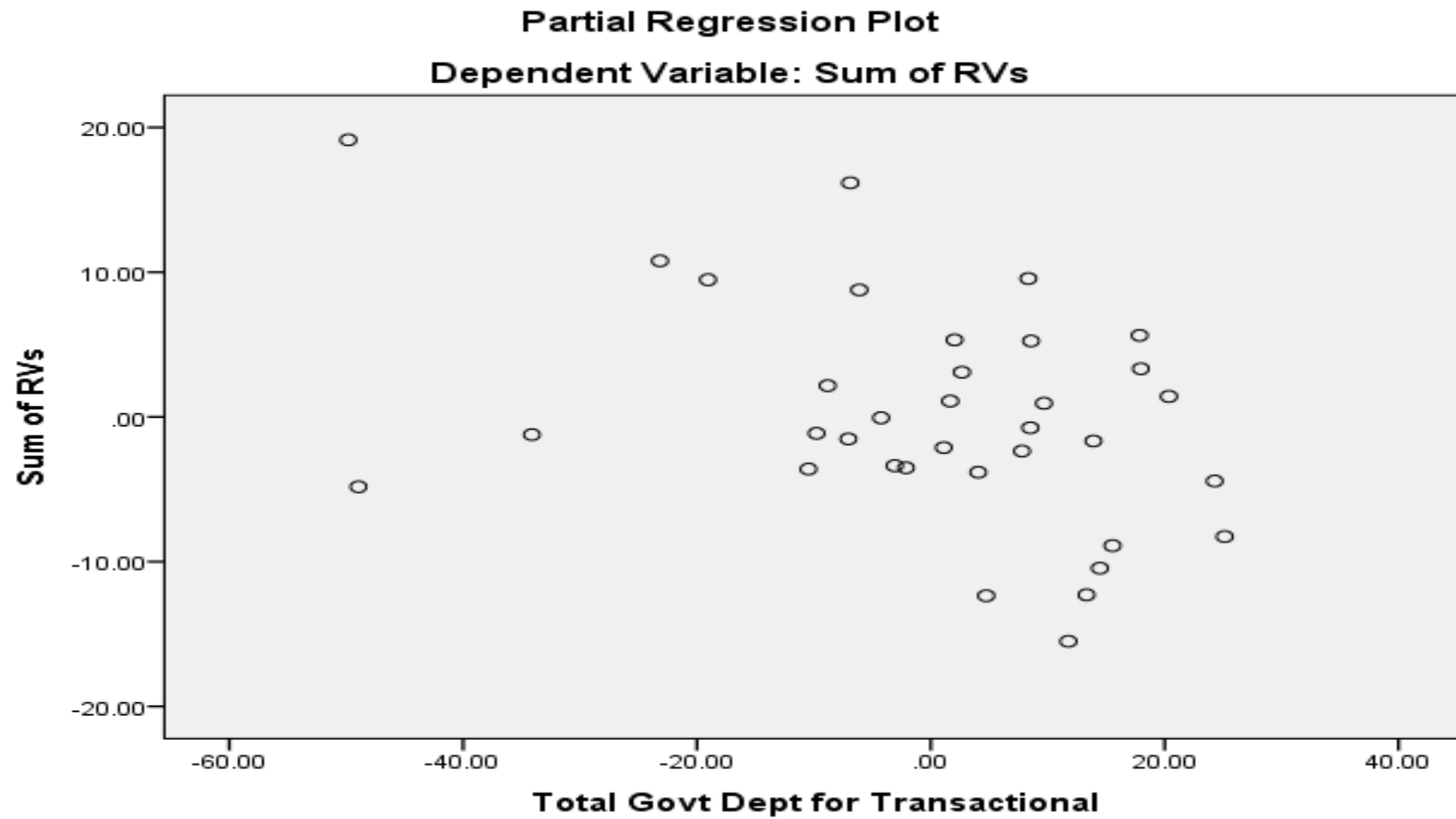
a. Dependent Variable: RES_1_SQ

b. Predictors: (Constant), PRE_1_SQ, Unstandardized Predicted Value

Appendix E (5): Scatterplot for Model 1: Transactional and Relational Variables

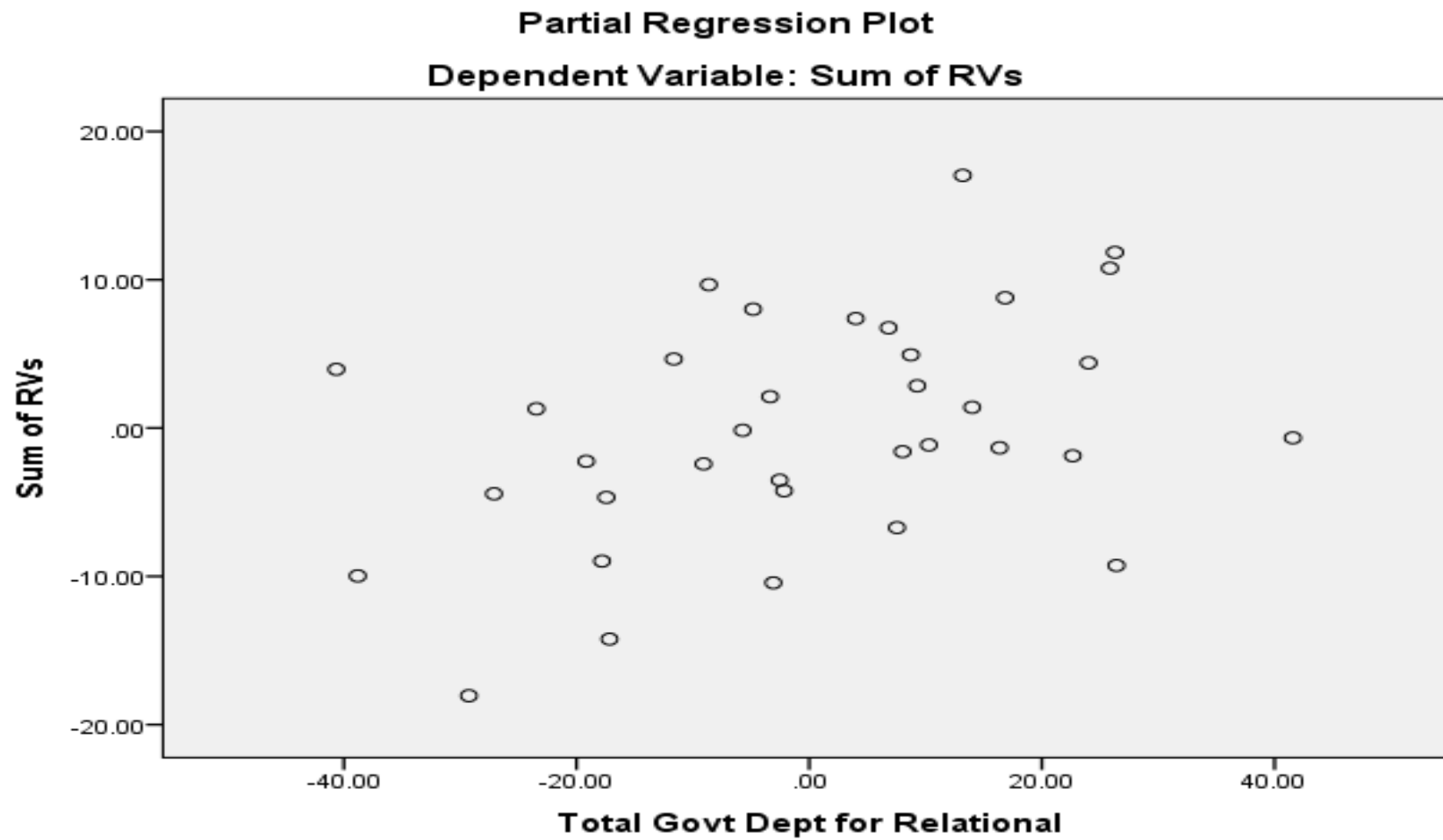


Appendix E (6): Partial regression Plot for Model 1: Transactional and Relational Variables



APPENDICES

Appendix E (7): Partial Regression Plot for Model 1: Transactional and Relational Variables



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Appendix F: Summary and Diagnostic Statistics for Model 2: Combined Relational and Transactional Variable

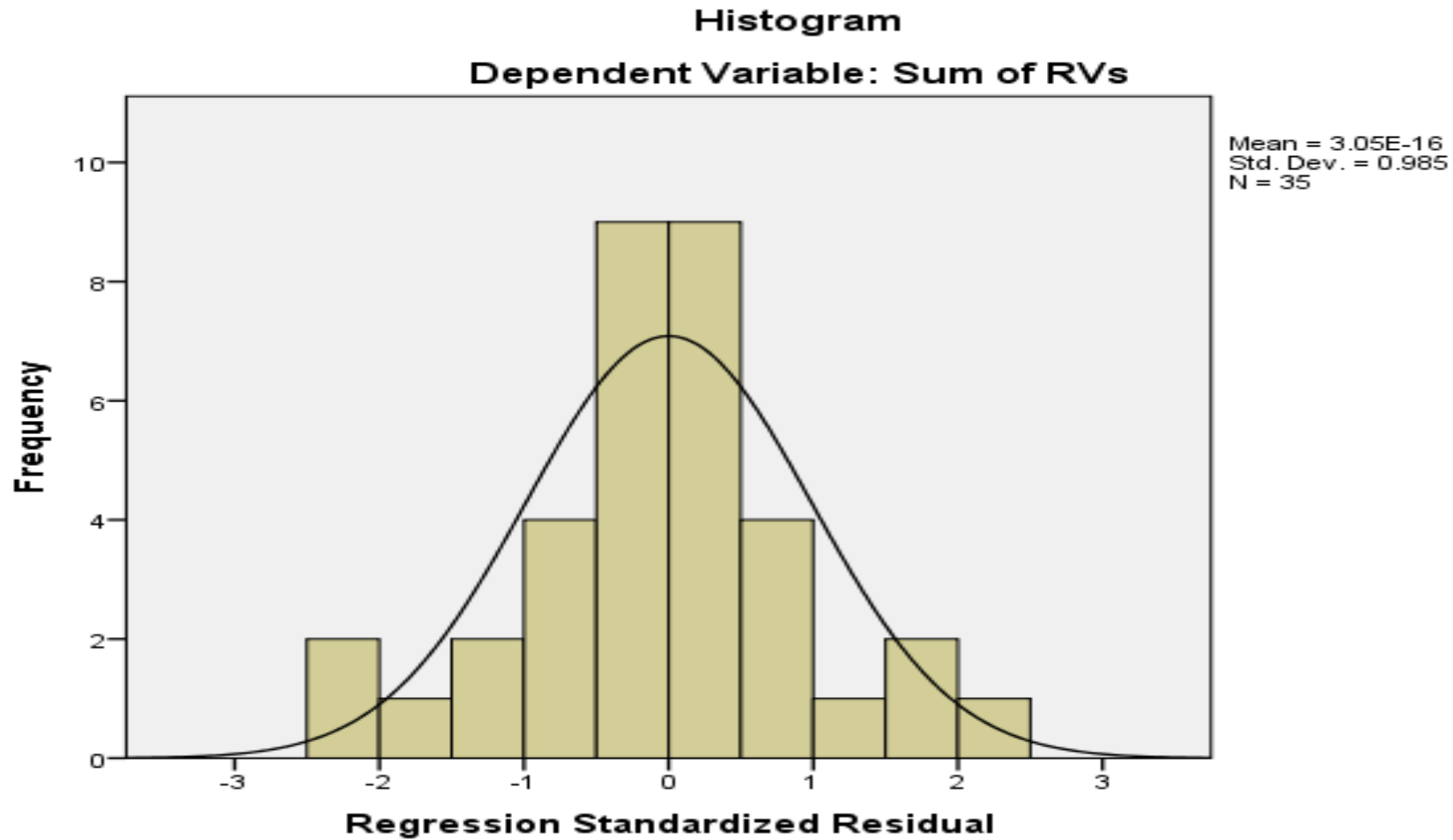
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	33.1133	49.5109	42.8571	3.73039	35
Std. Predicted Value	-2.612	1.784	.000	1.000	35
Standard Error of Predicted Value	1.201	3.401	1.624	.504	35
Adjusted Predicted Value	31.6599	51.6690	42.8995	3.84439	35
Residual	-15.51089	16.24572	.00000	6.99821	35
Std. Residual	-2.184	2.287	.000	.985	35
Stud. Residual	-2.331	2.322	-.003	1.019	35
Deleted Residual	-17.66904	16.75287	-.04239	7.49969	35
Stud. Deleted Residual	-2.511	2.500	-.004	1.061	35
Mahal. Distance	.000	6.823	.971	1.411	35
Cook's Distance	.000	.378	.037	.073	35
Centered Leverage Value	.000	.201	.029	.042	35

a. Dependent Variable: Sum of RVs

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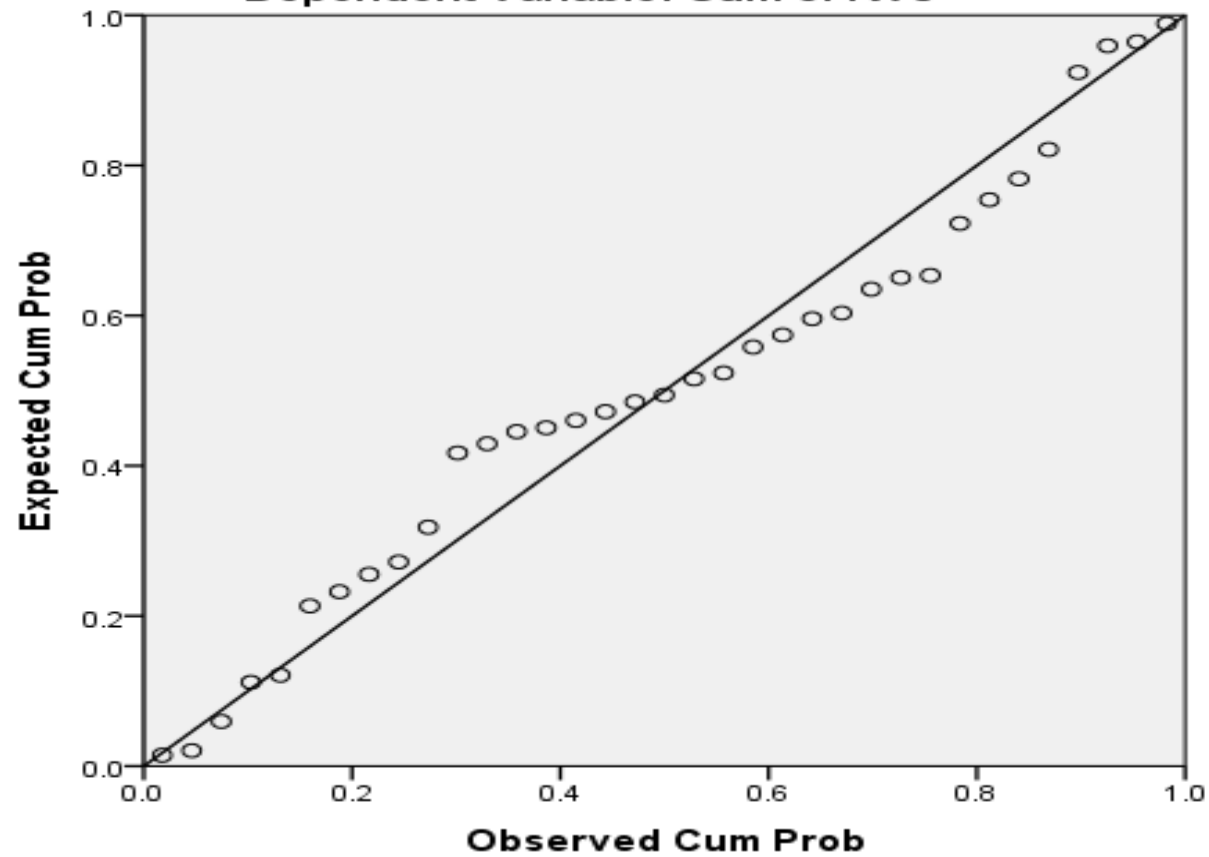
Appendix F (1): Histogram for Model 2: Combined Relational and Transactional Variable



Appendix F (2): Normal P-P Plot for Model 2: Combined Relational and Transactional Variable

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Sum of RVs



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Appendix F (3): Normality Test for Model2: Combined Relational and Transactional Variable

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.130	35	.142	.970	35	.436
Standardized Residual	.130	35	.142	.970	35	.436

a. Lilliefors Significance Correction

Appendix F (4): White's Test for Heteroscedasticity Model 2: Combined Relational and Transactional Variable

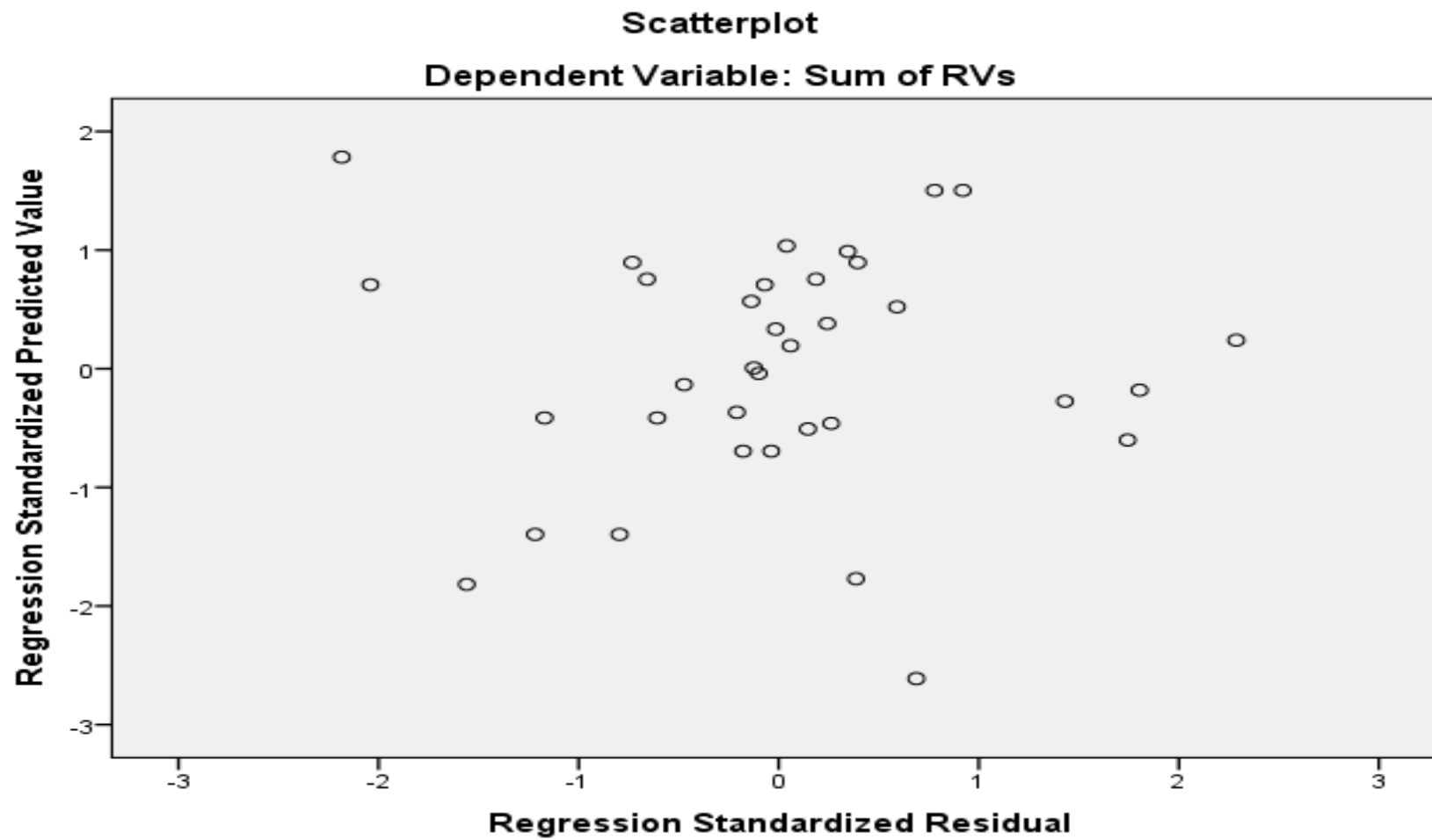
ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	4708.469	2	2354.234	.416	.663 ^b
Residual	180947.377	32	5654.606		
Total	185655.846	34			

a. Dependent Variable: RES_1_SQ

b. Predictors: (Constant), PRE_1_SQ, Unstandardized Predicted Value

Appendix F (5): Scatterplot for Model 2: Combined Relational and Transactional Variable



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Appendix G: Summary and Diagnostic Statistics for Model 3: Transactional, Relational and the Combined Relational and Transactional Variables

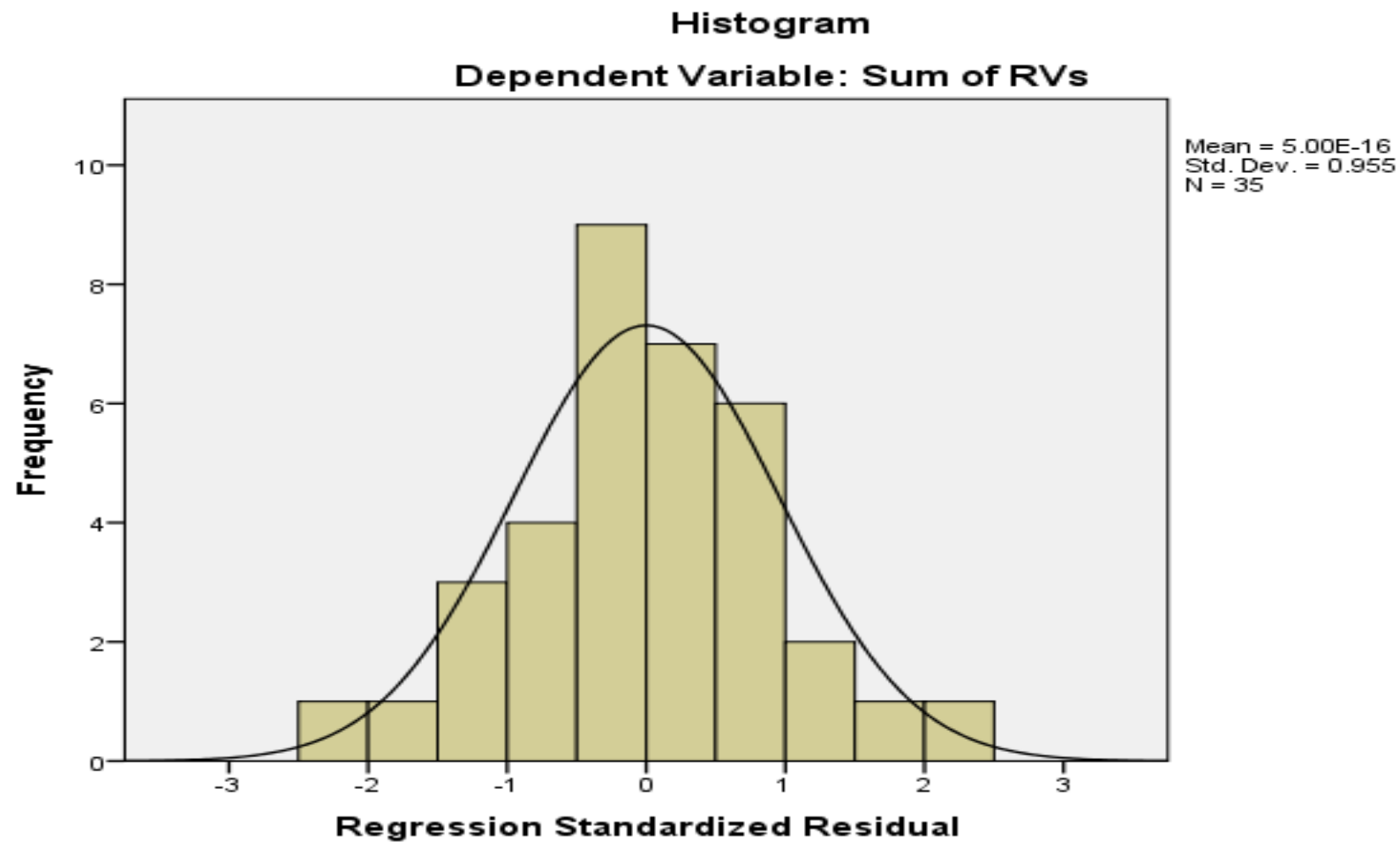
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	32.6531	55.0000	42.8571	4.93689	35
Std. Predicted Value	-2.067	2.460	.000	1.000	35
Standard Error of Predicted Value	1.137	6.500	1.955	1.017	35
Adjusted Predicted Value	32.7927	51.7604	42.6891	4.62738	34
Residual	-13.13508	14.77664	.00000	6.20628	35
Std. Residual	-2.021	2.273	.000	.955	35
Stud. Residual	-2.183	2.323	-.013	1.018	34
Deleted Residual	-15.33034	15.42331	-.18908	6.97853	34
Stud. Deleted Residual	-2.335	2.514	-.013	1.053	34
Mahal. Distance	.070	33.029	2.914	5.872	35
Cook's Distance	.000	.199	.028	.047	34
Centered Leverage Value	.002	.971	.086	.173	35

a. Dependent Variable: Sum of RVs

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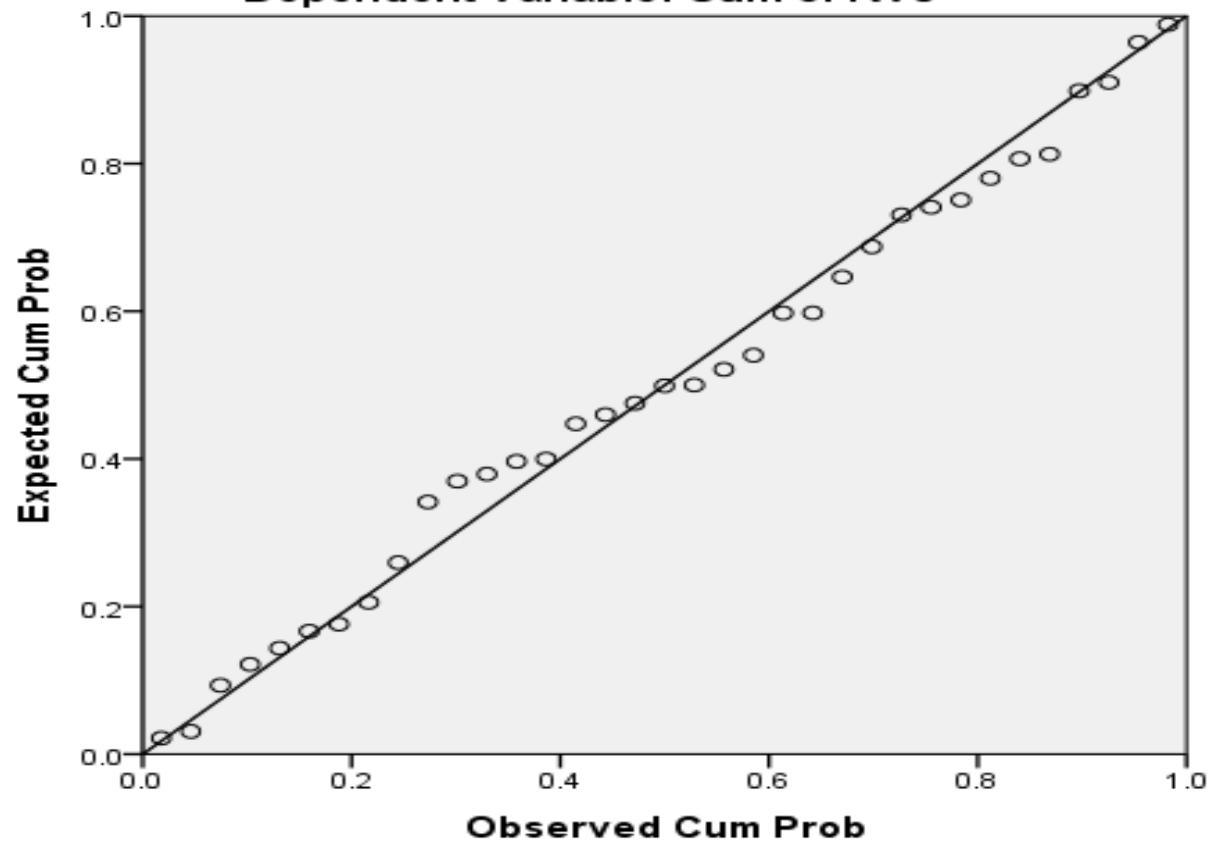
Appendix G (1): Histogram for Model 3: Transactional, Relational and the Combined Relational and Transactional Variables



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Appendix G (2): Summary and Diagnostic Statistics for Model 3: Transactional, Relational and the Combined Relational and Transactional Variables

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Sum of RVs



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Appendix G (3): Normality Test for Model 3: Transactional, Relational and the Combined Relational and Transactional Variables

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Unstandardized Residual	.078	35	.200 [*]	.990	35	.981
Standardized Residual	.078	35	.200 [*]	.990	35	.981

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

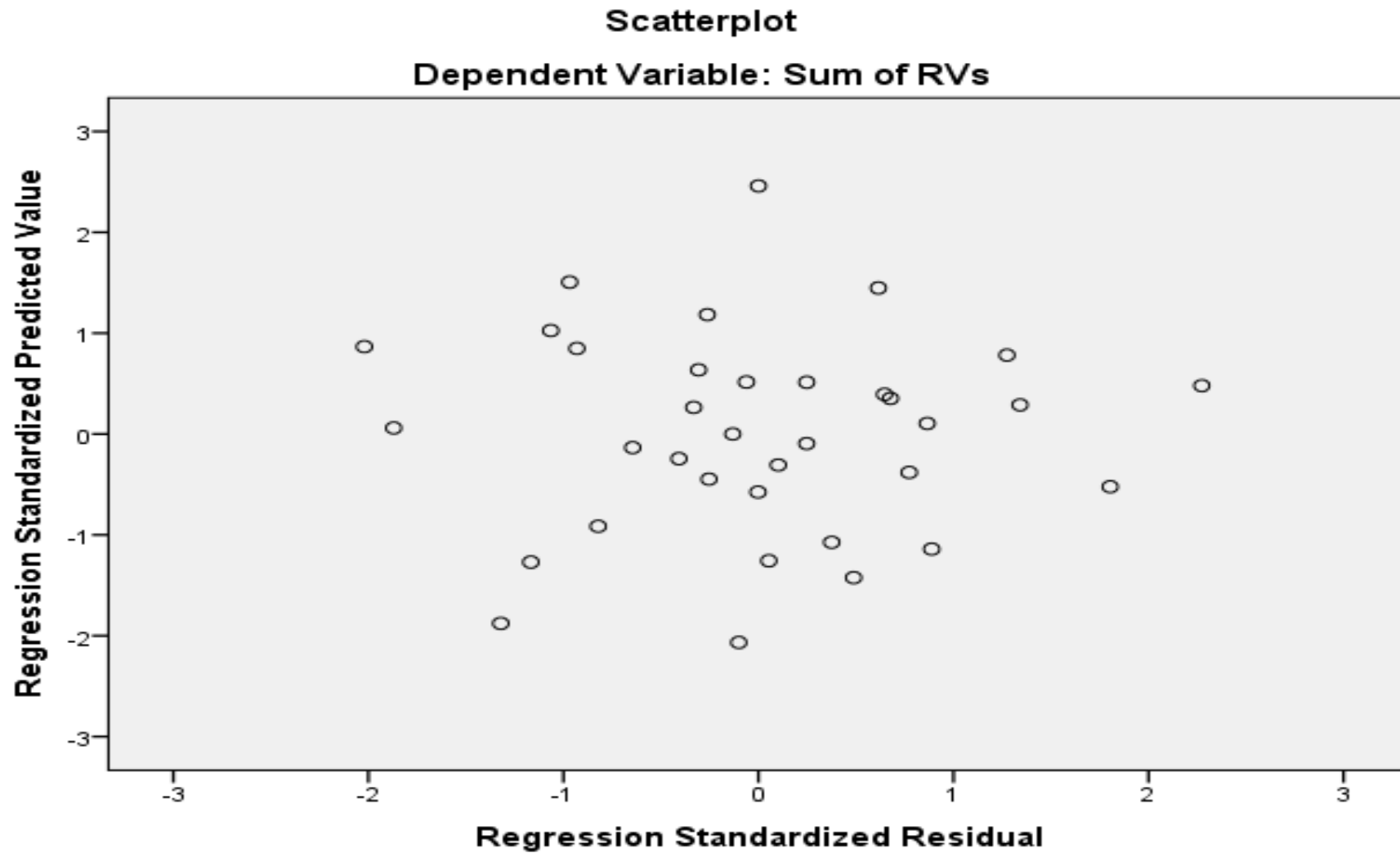
Appendix G (4): White's Test for Heteroscedasticity Model 3: Transactional, Relational and the Combined Relational and Transactional Variables

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2470.675	2	1235.337	.411	.666 ^b
Residual	96173.309	32	3005.416		
Total	98643.984	34			

a. Dependent Variable: RES_1_SQ

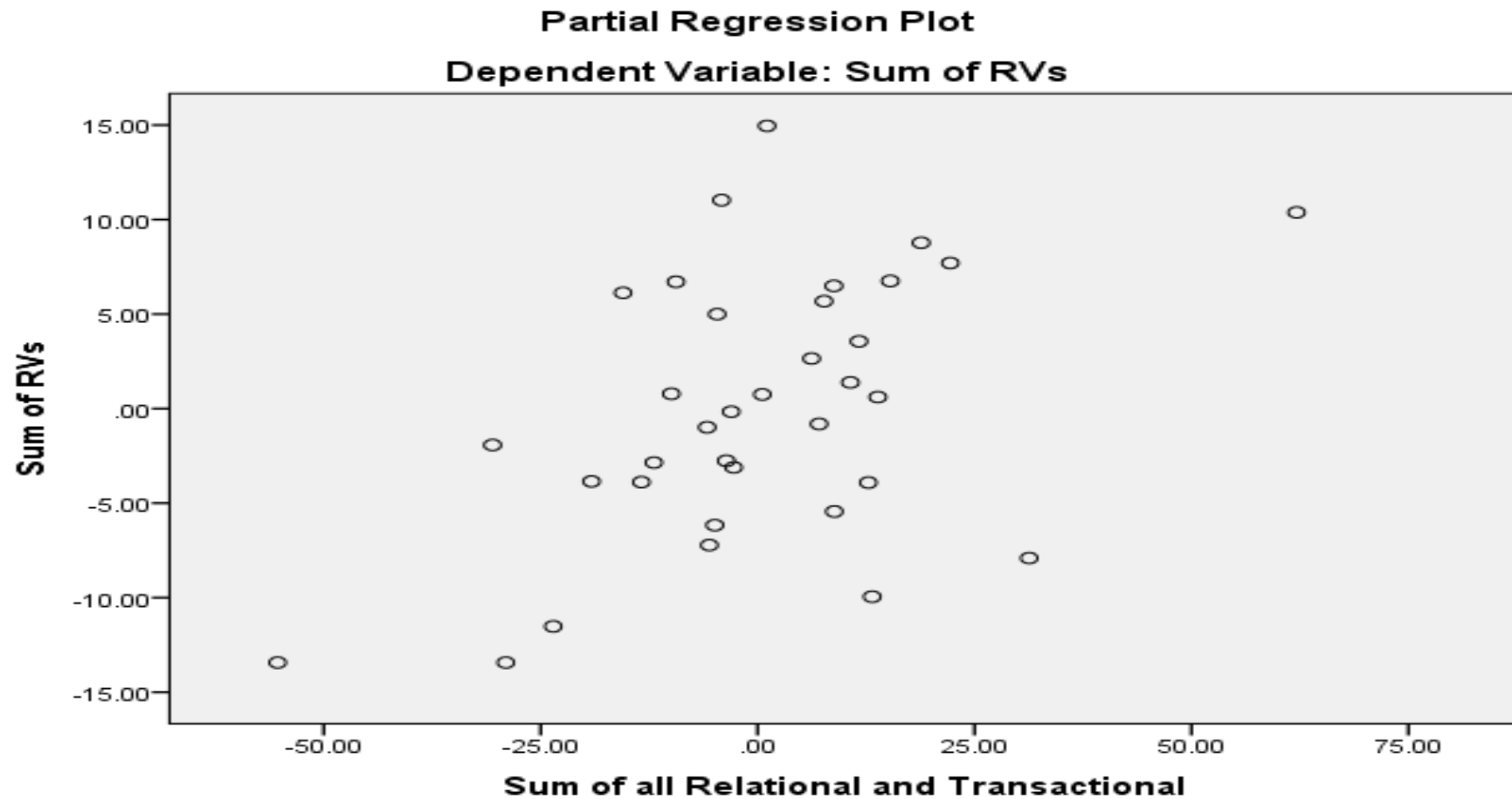
b. Predictors: (Constant), PRE_1_SQ, Unstandardized Predicted Value

Appendix G (5): Scatterplot for Model 3: Transactional, Relational and the Combined Relational and Transactional Variables



APPENDICES

Appendix G (6): Partial regression Plot for Model 3: Transactional, Relational and the Combined Relational and Transactional Variables



Appendix H: Sample of extracted coding transcripts from NVivo

Description: Contains references by questionnaire respondents to relevant and appropriate professional skills, competence and capability of Government Officials

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 27 references coded [23.08% Coverage]

Reference 1 - 0.85% Coverage

sufficient capacity¹ and capability²

Reference 2 - 0.85% Coverage

The recruitment and retention³ of highly capable and qualified staff

Reference 3 - 0.85% Coverage

Having and develop key and deep skills critical to holding suppliers to account and ensuring real value is secured from large-scale and complex contracts

Reference 4 - 0.85% Coverage

highly trained and motivated procurement experts

Reference 5 - 0.85% Coverage

hiring and retaining⁴ highly capable staff

Reference 6 - 0.85% Coverage

Skilled procurement professionals⁵

Reference 7 - 0.85% Coverage

Intelligent Procurement/Intelligent Customer. Too often procurement is seem outside of the context of the services required. Having an indepth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected.

Reference 8 - 0.85% Coverage

Development in current staff - not just training but providing opportunities for broadening an individuals experience.

Reference 9 - 0.85% Coverage

More use of secondments⁶ between departments both for incumbents and as part of the PDMS scheme.

Reference 10 - 0.85% Coverage

APPENDICES

Government needs to employ more and better lawyers.

Reference 11 - 0.85% Coverage

For Desktop services, buyers need to have a thorough knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation.

Reference 12 - 0.85% Coverage

Highly capable staff within a purchasing environment.

Reference 13 - 0.85% Coverage

Highly capable staff within the Client organisation which manages the relationship to improve value.

Reference 14 - 0.85% Coverage

Highly capable skilled staff

Reference 15 - 0.85% Coverage

Input from appropriate experts

Reference 16 - 0.85% Coverage

Trained, skilled but more importantly MOTIVATED staff (morale is poor across the piece from my experience).

Reference 17 - 0.85% Coverage

Use the model of the G-Cloud Cloud Store; each department needs its own skilled technical and commercial people, but they can make best use of suppliers available through centrally managed framework where best price is achieved.

Reference 18 - 0.85% Coverage

Best staff - on both sides

Reference 19 - 0.85% Coverage

developing the skills sets needed in each department, rather than a central function but with a knowledge zone or some type of best practice sharing so that knowledge could be passed between people workign in different departments

Reference 20 - 0.85% Coverage

Specialist skill sets required who have a deep understanding of the charging models in the Supply organisations i.e. license model specialists to ensure we are maximising the most out of the Supplier's models/capability/limits.

Reference 21 - 0.85% Coverage

Skilled and competent people in procurement and contract management

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Reference 22 - 0.85% Coverage

The recruitment and retention of highly capable and qualified staff;

Reference 23 - 0.85% Coverage

Have more of the right skills and calibre of staff client side.

Reference 24 - 0.85% Coverage

Training beyond CIPS Qualification. eg negotiation skills, project management

Reference 25 - 0.85% Coverage

I am conscious I am a bit out of touch and that as I left we were addressing an abortive procurement and move to more centralisation. I've not seen the outcome of that. Also I recognise the level of goodwill and off contract agreement and support that has no doubt enabled progress with UC and other major initiatives; but with the real test coming in the approach both parties take to contractualising informal agreements and whether both get value from such negotiations; and critically whether the Department has the skills and capacity to manage the volume and complexity of these negotiations.

Reference 26 - 0.85% Coverage

The retention of capable and qualified staff is a critical success factor. I have worked with Government officials for the past 10-years and on occasions the capability of staff involved has been questionable.

Reference 27 - 0.85% Coverage

Access to high quality staff representing all stakeholder groups within the govt department that contribute to the procurement (not just procurement staff).

Name: Pooling or Aggregation

Description: Contains references by questionnaire respondents to the pooling and aggregation of requirements, assets and demand

<Internals\Questionnaire Responses\Research Questionnaire> - § 13 references coded [11.10% Coverage]

Reference 1 - 0.85% Coverage

Pan Government contracts

Reference 2 - 0.85% Coverage

Ability and williness for Government Depts to work collectively.

Reference 3 - 0.85% Coverage

APPENDICES

Larger departments have to lead - the idea of a standardised desktop is achievable and has to be desirable - but with the best will in the world a department's size impacts the final price achieved.

Reference 4 - 0.85% Coverage

Cabinet Office need to leave the procurement to GPS and the Public Bodies.

Reference 5 - 0.85% Coverage

The Implementation not being too big - that doesn't prevent volumes being pooled however for economic advantage

Reference 6 - 0.85% Coverage

cross government **standardisation**¹/commoditisation of requirement.

Reference 7 - 0.85% Coverage

Pan-Government deals with Supplier's - purchase as the Crown for the Crown as scale = best possible pricing

Reference 8 - 0.85% Coverage

Pan-Government asset databases is maintained to enable sharing of spares across the departments i.e. surplus software licenses/standard kit. If terms prevent re-distribution, then negotiate that flexibility into any pan-Gov / MOU's with the Suppliers.

Reference 9 - 0.85% Coverage

Aggregation of demand² for commodity products and services e.g. travel tickets.

Reference 10 - 0.85% Coverage

Compromise. As far as possible standardise products and services accross government.

Reference 11 - 0.85% Coverage

The creation of pan-Government procurement functions and frameworks (eg G-Cloud) to provide centralises and flexible procurement.

Reference 12 - 0.85% Coverage

need to consolidate more procurement exercises as its currently being run for each individual government body meaning best value and practices are not gained

Reference 13 - 0.85% Coverage

Getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique)needs of the individual govt department that is procuring the service.

Name: Centralisation

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Description: Contains references by questionnaire respondents to the centralisation of procurements and requirements fulfilment

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 11 references coded [9.39% Coverage]

Reference 1 - 0.85% Coverage

Whilst there is merit in a centralised¹ pan government team, i think there would be distrust from Departments as there would not be any business context applied.

Reference 2 - 0.85% Coverage

Industry or category ed approach. Select best VFM² approach depending on category. Some will be public sector wide, some central Govt, soeme dept and some local. Aim for standard specs where possible. Centralised procurement must balance VFM with customer service and be really accountable for delivering savings.

Reference 3 - 0.85% Coverage

Use the model of the G-Cloud Cloud Store; each department needs its own skilled technical and commercial people, but they can make best use of suppliers available through centrally managed framework where best price is achieved.

Reference 4 - 0.85% Coverage

cross government standardisation³/commoditisation of requirement.

Reference 5 - 0.85% Coverage

Pan-Government deals with Supplier's - purchase as the Crown for the Crown as scale = best possible pricing

Reference 6 - 0.85% Coverage

Pan-Government asset databases is maintained to enable sharing of spares across the departments i.e. surplus software licenses/standard kit. If terms prevent re-distribution, then negotiate that flexibility into any pan-Gov / MOU's with the Suppliers.

Reference 7 - 0.85% Coverage

the creation of a pan Government Centralised and flexible Procurement Function,

Reference 8 - 0.85% Coverage

the vestment of the Procurement Buying Authority on a Centralised Procurement Authority

Reference 9 - 0.85% Coverage

The creation of pan-Government procurement functions and frameworks (eg G-Cloud) to provide centralises and flexible procurement.

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Reference 10 - 0.85% Coverage

need to consolidate more procurement exercises as its currently being run for each individual government body meaning best value and practices are not gained

Reference 11 - 0.85% Coverage

Getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique) needs of the individual govt department that is procuring the service.

Name: Category Management

Description: Contains references by questionnaire respondents to end to end Category Management with appropriate market insights and intelligence

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 11 references coded [9.40% Coverage]

Reference 1 - 0.85% Coverage

making decisions early about scope of service requirements taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best)

Reference 2 - 0.85% Coverage

ICT commercial management viewed as not important by some SCS in DWP commercial
Lack of understanding that Cat Man responsibilities split between IT, Finance and CD

Reference 3 - 0.85% Coverage

Skilled procurement professionals¹

Reference 4 - 0.85% Coverage

Intelligent Procurement/Intelligent Customer. Too often procurement is seen outside of the context of the services required. Having an in-depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected.

Reference 5 - 0.85% Coverage

For Desktop services, buyers need to have a thorough knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation.

Reference 6 - 0.85% Coverage

building specific market understanding² in buyers and service delivery i.e. ability to see beyond the confines of your current contract.

Reference 7 - 0.85% Coverage

APPENDICES

As procurement professionals we must stop going out to market before the business has fully understood the requirement. Approaching the market before this is done is embarrassing and despite CO warning against it this still happens today. Truly stopping this practise will enhance our approach to UK public procurement.

Reference 8 - 0.85% Coverage

Government policy drives strategy, however from a commercial perspective I am not convinced that our policy development is sufficiently informed by market and supplier intelligence and therefore we loose significant opportunities to appropriate additional value within our commercial relationships. Furthermore given the extent of public services that have been outsourced and the tendency for long term contracts and or managed services I am not sure that our commercial strategies³ are designed to achieve best value for money.

Reference 9 - 0.85% Coverage

It is also recommended that buyers of Desktop services become the category managers to ensure the optimal contract implementation outcomes

Reference 10 - 0.85% Coverage

Successful category management⁴ is dependent upon expertise that identifies desktop as not just a commodity activity. Technological change means that it is important for the use of desktop to be considered alongside other aspects of IT transformation rather than just a "baked bean" style of transaction. This requires technically capable and aware IT procurement staff who understand the impact of such change on the procurement agenda. There is a need to ensure any centralised framework strategy is sufficiently flexible as to address the individual departmental services requirements or the resulting output will be higher service integration charges. A range of approved suppliers whose core business is Desktop delivery would reduce costs and ensure success.

Reference 11 - 0.85% Coverage

Access to high quality staff representing all stakeholder groups within the govt department that contribute to the procurement (not just procurement staff).

Name: Value For Money

Description: Contains references by questionnaire respondents to the delivery of savings and efficiency

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 11 references coded [9.40% Coverage]

Reference 1 - 0.85% Coverage

Industry or category ed approach. Select best VFM¹ approach depending on category. Some will be public sector wide, some central Govt, some dept and some local. Aim for standard specs where possible. Centralised procurement must balance VFM with customer service and be really accountable for delivering savings.

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Reference 2 - 0.85% Coverage

It is widely recognised that competition drives VFM.

Reference 3 - 0.85% Coverage

Highly capable staff within the Client organisation which manages the relationship to improve value.

Reference 4 - 0.85% Coverage

radical rethink of our requirements and our service wrapper are critical to us achieving to value for money across dwp & govt.

Reference 5 - 0.85% Coverage

Specialist skill sets required who have a deep understanding of the charging models in the Supply organisations i.e. license model specialists to ensure we are maximising the most out of the Supplier's models/capability/limits.

Reference 6 - 0.85% Coverage

Incentivise Suppliers to maximise value opportunities.

Reference 7 - 0.85% Coverage

An in-contract joint task group specifically to drive out innovation², improvements and value for money

Reference 8 - 0.85% Coverage

Government policy drives strategy, however from a commercial perspective I am not convinced that our policy development is sufficiently informed by market and supplier intelligence and therefore we loose significant opportunities to appropriate additional value within our commercial relationships. Furthermore given the extent of public services that have been outsourced and the tendency for long term contracts and or managed services I am not sure that our commercial strategies³ are designed to achieve best value for money.

Reference 9 - 0.85% Coverage

govt depts have to stop thinking that their requirements⁴ make them special. true cost reduction and value will only be achieve by robust and knowledgeable challenge at the point requirements are being determined.

Reference 10 - 0.85% Coverage

My general feeling is that Government Contractors, whether they be directly appointed by individual departments or through mini-competitions from a Framework Agreement, always have the upper hand simply because we are not smart enough in Procurement and contract management and we always struggle to drive out value for money and efficiencies when all contractors are interested in is maximising profit. There is little interest or appetite from a contractor in partnering or collaboration for innovation and improvement unless there's

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money in it for them. These are the areas where we should focus in Procurement in a bid to maximise contract potential and benefits and prowess in negotiation.

Reference 11 - 0.85% Coverage

need to consolidate more procurement exercises as its currently being run for each individual government body meaning best value and practices are not gained

Name: Standardisation

Description: Contains references by questionnaire respondents to standardisation of requirements, specification, processes and governance across Government

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 9 references coded [7.69% Coverage]

Reference 1 - 0.85% Coverage

Greater standardisation

Reference 2 - 0.85% Coverage

Finally I believe that the desktop service has been overcomplicated to the detriment of bringing in new players to the Government desktop market.

Reference 3 - 0.85% Coverage

Industry or category ed approach. Select best VFM¹ approach depending on category. Some will be public sector wide, some central Govt, soeme dept and some local. Aim for standard specs where possible. Centralised procurement must balance VFM with customer service and be really accountable for delivering savings.

Reference 4 - 0.85% Coverage

Standardising procurement processes (LEAN)

Reference 5 - 0.85% Coverage

Larger departments have to lead - the idea of a standardised desktop is achievable and has to be desirable - but with the best will in the world a department's size impacts the final price achieved.

Reference 6 - 0.85% Coverage

cross government standardisation²/commoditisation of requirement.

Reference 7 - 0.85% Coverage

shiniest is not best - no one in govt needs anything made by Apple that cant be provided by another vendor more cheaply.

Reference 8 - 0.85% Coverage

APPENDICES

Compromise. As far as possible standardise products and services accross government.

Reference 9 - 0.85% Coverage

Getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique)needs of the individual govt department that is procuring the service.

Name: Requirements or Specification

Description: Contains references by questionnaire respondents to thesimplification of requirements/specification

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 9 references coded [7.66% Coverage]

Reference 1 - 0.85% Coverage

Finally I believe that the desktop service has been overcomplicated to the detriment of bringing in new players to the Government desktop market.

Reference 2 - 0.85% Coverage

making decisions early about scope of service requirements taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best)

Reference 3 - 0.85% Coverage

Speed¹ to market and speed to service award.

Reference 4 - 0.85% Coverage

radical rethink of our requirements and our service wrapper are critical to us achieving to value for money across dwp & govt.

Reference 5 - 0.85% Coverage

shiniest is not best - no one in govt needs anything made by Apple that cant be provided by another vendor more cheaply.

Reference 6 - 0.82% Coverage

Contract clarity including definitions, description of services, delivery, performance, penalties, partnering

Reference 7 - 0.85% Coverage

As procurement professionals we must stop going out to market before the business has fully understood the requirement. Approaching the market before this is done is embarrassing and despite CO warning against it this still happens today. Truly stopping this practise will enhance our approach to UK public procurement.

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Reference 8 - 0.85% Coverage

govt depts have to stop thinking that their requirements² make them special. true cost reduction and value will only be achieved by robust and knowledgeable challenge at the point requirements are being determined.

Reference 9 - 0.85% Coverage

Clear requirements with respect to the specific contract being procured.

Name: Decentralisation

Description: Contains references by questionnaire respondents to the independence of Government Departments from central control from the Cabinet Office

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 9 references coded [7.69% Coverage]

Reference 1 - 0.85% Coverage

Whilst there is merit in a centralised¹ pan government team, i think there would be distrust from Departments as there would not be any business context applied.

Reference 2 - 0.85% Coverage

Yes to the above, but important to recognise where Departmental interests coincide and where they diverge. Centralisation² and scale does not necessarily deliver value or efficiency if the single solution lacks the flexibility to meet diverse (and sometimes fast changing) requirements.

Reference 3 - 0.85% Coverage

Cabinet Office need to leave the procurement to GPS and the Public Bodies.

Reference 4 - 0.85% Coverage

where individual departments have a large requirement, the ability to do a 'one-off' deal - financial year ends, size, timing etc are a reality of procurement.

Reference 5 - 0.85% Coverage

Use the model of the G-Cloud Cloud Store; each department needs its own skilled technical and commercial people, but they can make best use of suppliers available through centrally managed framework where best price is achieved.

Reference 6 - 0.85% Coverage

developing the skills sets needed in each department, rather than a central function but with a knowledge zone or some type of best practice sharing so that knowledge could be passed between people working in different departments

Reference 7 - 0.85% Coverage

APPENDICES

Centralisation can mean too great a distance from the business and customers. Can also mean savings claimed are not real - centre does not hold the budget.

Reference 8 - 0.85% Coverage

I am conscious I am a bit out of touch and that as I left we were addressing an abortive procurement and move to more centralisation. I've not seen the outcome of that. Also I recognise the level of goodwill and off contract agreement and support that has no doubt enabled progress with UC and other major initiatives; but with the real test coming in the approach both parties take to contractualising informal agreements and whether both get value from such negotiations; and critically whether the Department has the skills and capacity to manage the volume and complexity of these negotiations.

Reference 9 - 0.85% Coverage

Getting the balance right - by leveraging central / pan-government procurement initiatives where appropriate but not at the expense of meeting the specific (and in some circumstances, unique) needs of the individual govt department that is procuring the service.

Name: Strategic Commercial Management

Description: Contains responses by questionnaire respondents to the development and delivery of strategic commercial solutions

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 7 references coded [5.98% Coverage]

Reference 1 - 0.85% Coverage

Skilled procurement professionals¹

Reference 2 - 0.85% Coverage

Intelligent Procurement/Intelligent Customer. Too often procurement is seen outside of the context of the services required. Having an in-depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected.

Reference 3 - 0.85% Coverage

For Desktop services, buyers need to have a thorough knowledge of the services they are procuring in order to mitigate any disadvantage with suppliers and the risk of exploitation.

Reference 4 - 0.85% Coverage

building specific market understanding² in buyers and service delivery i.e. ability to see beyond the confines of your current contract.

Reference 5 - 0.85% Coverage

As procurement professionals we must stop going out to market before the business has fully understood the requirement. Approaching the market before this is done is

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embarrassing and despite CO warning against it this still happens today. Truly stopping this practise will enhance our approach to UK public procurement.

Reference 6 - 0.85% Coverage

We seem to have recognised the need for Agility and Agile³ Services within our development programmes but have not carried forward Agile thinking into our commercial strategies and/or commercial vehicles.

Reference 7 - 0.85% Coverage

It is also recommended that buyers of Desktop services become the category managers to ensure the optimal contract implementation outcomes.

Name: Collaboration

Description: Contains references by questionnaire respondents to working more closely together and sharing best practice amongst Government Departments

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 6 references coded [5.13% Coverage]

Reference 1 - 0.85% Coverage

Ability and williness for Government Depts to work collectively.

Reference 2 - 0.85% Coverage

Collaboration¹ between departments.

Reference 3 - 0.85% Coverage

In-contract joint task groups to resolve contractual problems²

Reference 4 - 0.85% Coverage

An in-contract joint task group specifically to drive out innovation³, improvements and value for money

Reference 5 - 0.85% Coverage

Open and collaborative approach to contract negotiations and subsequent delivery.

Reference 6 - 0.85% Coverage

Recognising the value of innovation, collaboration, partnership and focus on service quality alongside price when evaluating proposals.

Name: Capacity

APPENDICES

Description: Contains references by questionnaire respondents to capacity of Government Officials to manage and deliver effective Commercial Management

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 5 references coded [4.27% Coverage]

Reference 1 - 0.85% Coverage

sufficient capacity¹ and capability²

Reference 2 - 0.85% Coverage

Speed³ to market and speed to service award.

Reference 3 - 0.85% Coverage

I am conscious I am a bit out of touch and that as I left we were addressing an abortive procurement and move to more centralisation. I've not seen the outcome of that. Also I recognise the level of goodwill and off contract agreement and support that has no doubt enabled progress with UC and other major initiatives; but with the real test coming in the approach both parties take to contractualising informal agreements and whether both get value from such negotiations; and critically whether the Department has the skills and capacity to manage the volume and complexity of these negotiations.

Reference 4 - 0.85% Coverage

It would also be good to see more Government staff rather than contractors.

Reference 5 - 0.85% Coverage

It would also be good to see more Government staff rather than contractors.

Name: Framework

Description: Contains references by questionnaire respondents to the use of frameworks for contracting amongst Government Departments

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 5 references coded [4.14% Coverage]

Reference 1 - 0.85% Coverage

easy entry/access to the Framework¹.

Reference 2 - 0.72% Coverage

from the framework ('further competitions' may be the answer sometimes, but not always)

Reference 3 - 0.85% Coverage

APPENDICES

Use the model of the G-Cloud Cloud Store; each department needs its own skilled technical and commercial people, but they can make best use of suppliers available through centrally managed framework where best price is achieved.

Reference 4 - 0.85% Coverage

A robust Framework Agreement with approved Suppliers

Reference 5 - 0.85% Coverage

Successful **category management**² is dependent upon expertise that identifies desktop as not just a commodity activity. Technological change means that it is important for the use of desktop to be considered alongside other aspects of IT transformation rather than just a "baked bean" style of transaction. This requires technically capable and aware IT procurement staff who understand the impact of such change on the procurement agenda. There is a need to ensure any centralised framework strategy is sufficiently flexible as to address the individual departmental services requirements or the resulting output will be higher service integration charges. A range of approved suppliers whose core business is Desktop delivery would reduce costs and ensure success.

Name: Flexibility

Description: Contains references by questionnaire respondents to recognising when to centralise and when to defer to Government Departments including the use of Small Medium Enterprise and the third sector organisations

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 4 references coded [3.42% Coverage]

Reference 1 - 0.85% Coverage

Yes to the above, but important to recognise where Departmental interests coincide and where they diverge. **Centralisation**¹ and scale does not necessarily deliver value or efficiency if the single solutions lacks the flexibility to meet diverse (and sometimes fast changing) requirements.

Reference 2 - 0.85% Coverage

A move to a more flexible approach where local procurement can be applied ensuring SMEs have an opportunity to work with the public sector.

Reference 3 - 0.85% Coverage

the creation of a pan Government Centralised and flexible Procurement Function,

Reference 4 - 0.85% Coverage

Flexible² and leverageable function.

Name: Intelligent Client Function

APPENDICES

Description: Contains references by questionnaire respondents to cross functional intelligent client function within government departments to enable effective procurement

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 4 references coded [3.42% Coverage]

Reference 1 - 0.85% Coverage

An **intelligent client function**¹ in each department - an organisation that understands the technology, services, suppliers, commercial levers.

Reference 2 - 0.85% Coverage

Intelligent Procurement/Intelligent Customer. Too often procurement is seen outside of the context of the services required. Having an in-depth knowledge base that includes technical expertise, service delivery expertise and procurement expertise working collaboratively would ensure that the contract better delivers the services required and expected.

Reference 3 - 0.85% Coverage

An in-contract joint task group specifically to drive out **innovation**², improvements and value for money

Reference 4 - 0.85% Coverage

Access to high quality staff representing all stakeholder groups within the govt department that contribute to the procurement (not just procurement staff).

Name: Recruitment and Retention

Description: Contains references by questionnaire respondents to effective recruitment and retention of skilled, qualified and competent staff

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 4 references coded [3.42% Coverage]

Reference 1 - 0.85% Coverage

The **recruitment and retention**¹ of highly capable and qualified staff

Reference 2 - 0.85% Coverage

Continuity of staff on both sides

Reference 3 - 0.85% Coverage

The recruitment and retention of highly capable and qualified staff;

Reference 4 - 0.85% Coverage

APPENDICES

The retention of capable and qualified staff is a critical success factor. I have worked with Government officials for the past 10-years and on occasions the capability of staff involved has been questionable.

Name: Change Management

Description: Contains references by questionnaire respondents to Change Management

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 4 references coded [3.42% Coverage]

Reference 1 - 0.85% Coverage

Delivery of change¹ and improved business services².

Reference 2 - 0.85% Coverage

Cultural alignment

Reference 3 - 0.85% Coverage

Fully documented contract clarifications, changes, variations etc.

Reference 4 - 0.85% Coverage

Common Culture

Name: Engagement

Description: Contains references by questionnaire respondents to early engagement with suppliers

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 4 references coded [3.42% Coverage]

Reference 1 - 0.85% Coverage

making decisions early about scope of service requirements taking expert advice from the market where applicable (but not leaving it to the market to dictate what they think is best)

Reference 2 - 0.85% Coverage

Speed¹ to market and speed to service award.

Reference 3 - 0.85% Coverage

Pre-procurement engagement² with Suppliers to promote SRM³ from the outset

Reference 4 - 0.85% Coverage

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The above information has been a challenge to complete as we have seen our own engagement with HMRC change throughout the life of our contract - going from direct interaction to becoming a sub contractor to ASPIRE and this has a material impact on the engagement and experience reflected.

Name: Incentives

Description: Contains references by questionnaire respondents to the use of Contract Incentives to drive performance

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 4 references coded [3.39% Coverage]

Reference 1 - 0.85% Coverage

Penalties and incentives¹ that govern performance are detailed in our Desktop Contracts

Reference 2 - 0.85% Coverage

Incentivise Suppliers to maximise value opportunities.

Reference 3 - 0.82% Coverage

Contract clarity including definitions, description of services, delivery, performance, penalties, partnering

Reference 4 - 0.85% Coverage

Considering innovative ways of paying² for services and sharing benefits with suppliers where such benefits have been jointly realised.

Name: Demand Management

Description: Contains references by questionnaire respondents for effective management of demand

<Internals\\Questionnaire Responses\\Research Questionnaire> - § 4 references coded [3.42% Coverage]

Reference 1 - 0.85% Coverage

Challenging the need to spend

Reference 2 - 0.85% Coverage

It is up to Public Sector to create and shape truly competitive¹ markets for the provision of the services and commodities they require which ensures that they appropriate the value opportunities available through effective "Demand Management²" in the true sense of the meaning.

Reference 3 - 0.85% Coverage

APPENDICES

developing the skills sets needed in each department, rather than a central function but with a knowledge zone or some type of best practice sharing so that knowledge could be passed between people working in different departments

Reference 4 - 0.85% Coverage

govt depts have to stop thinking that their requirements³ make them special. true cost reduction and value will only be achieved by robust and knowledgeable challenge at the point requirements are being determined.

Name: Supplier Relationship Management

Description: Contains responses by questionnaire respondents to Supplier Relationship Management

<Internals\Questionnaire Responses\Research Questionnaire> - § 4 references coded [3.42% Coverage]

Reference 1 - 0.85% Coverage

Highly capable staff within the Client organisation which manages the relationship to improve value.

Reference 2 - 0.85% Coverage

Both sides understanding what the other is trying to achieve, and must achieve through the relationship

Reference 3 - 0.85% Coverage

Pre-procurement engagement¹ with Suppliers to promote SRM² from the outset

Reference 4 - 0.85% Coverage

As procurement professionals we must stop going out to market before the business has fully understood the requirement. Approaching the market before this is done is embarrassing and despite CO warning against it this still happens today. Truly stopping this practice will enhance our approach to UK public procurement.

Appendix I: The nodes structure and relationships

